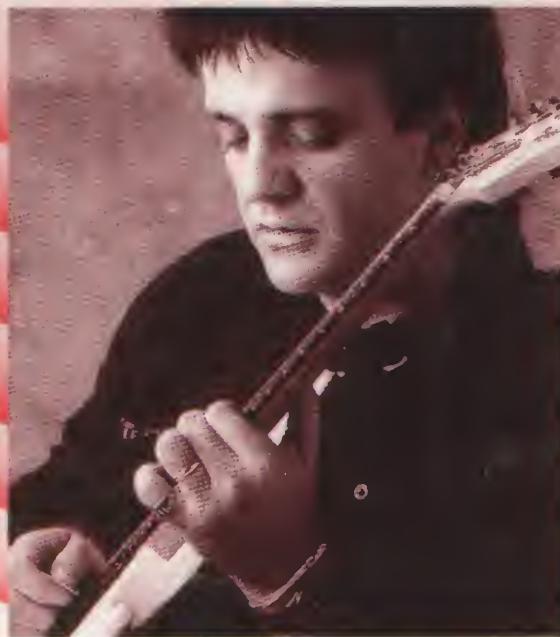


THE FRANK GAMBALLE TECHNIQUE BOOK I



THE ESSENTIAL SOLOING THEORY COURSE
FOR ALL GUITARISTS!



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SOLOING CONCEPT

I break music down into six basic chord types, and their applicable scales (See Fig. 1). Then over each of the chord types I apply five soloing approaches for each applicable scale. The possibilities for soloing over these chords are, therefore, greatly expanded.

This book covers the second and third approaches for chord type 4 and all approaches for chord types 5 and 6.

CHORD TYPES

(and applicable scales)

1 MINOR 7

1a Dorian
1b Aeolian

2 MAJOR 7

2a Major
2b Lydian

3 UNALTERED DOMINANT 7

3a Mixolydian
3b Lydian b7

4 ALTERED DOMINANT 7

4a Super Locrian
4b Diminished 1/2 / whole
4c Phrygian major

5 MINOR 7 (b5)

5a Locrian
5b Aeolian b5
5c Locrian nat6

6 DIMINISHED

6a Diminished whole / 1/2
6b Super Locrian nat6

APPROACHES

1 SCALE*

(7 or 8 notes)

2 PENTATONICS & BLUES

(5 & 6 notes)

3 ARPEGGIOS

(4 notes)

4 TRIADS

(3 notes)

5 INTERVALS

(2 notes)

* Approaches 2 through 5 are derived from the applicable scale chosen for soloing approach 1.

Fig. 1

CHAPTER I: MINOR 7 CHORDS

There are two main ways to treat a min7 chord:

As a II chord in a major key, or as a VI chord.

- 1a Min7 as a II chord: the chord = 1 b3 5 b7 (9 11 13);
the scale to use is Dorian mode = 1 2 b3 4 5 6 b7 =
mode II of major. (9) (11) (13)
(see appendix if you need an explanation of modes.)

- 1b Min7 as a VI chord: the chord = 1 b3 5 b7 (9 11 b13);
the scale is Aeolian mode (also known as natural minor)
= 1 2 b3 4 5 b6 b7 = mode VI of major
(9) (11) (b13)

Example: Dmin7 can be a II in C major

Cmaj7	Dmin7	Emin7	Fmaj7	G7	Amin7	Bmin7 (b5)
I	II	III	IV	V	VI	VII

or a VI in F Major.

Fmaj7	Gmin7	Amin7	Bbmaj7	C7	Dmin7	Emin7 (b5)
I	II	III	IV	V	VI	VII

Compare these two scale approaches and you can see that the chords differ by only one note: nat13 over min7 (Dorian) versus b13 over min7 (Aeolian). The modes differ by one note: nat6 in Dorian versus b6 in Aeolian. Of course, 6 = the same note as 13; b6 = the same note as b13 or #5. So the pentatonics, arpeggios etc., that we use over Dmin7 which contain a B (6 or 13 of D) will be specifically Dorian. Those which contain a Bb (b6 or #5 or b13 of D) will be specifically Aeolian. And there are some which contain neither a 6 nor a b6; these are common to both Dorian and Aeolian.

First, we'll take a look at the Dorian scale over min7.

CHORD TYPE: Min7

APPROACH: DORIAN SCALE

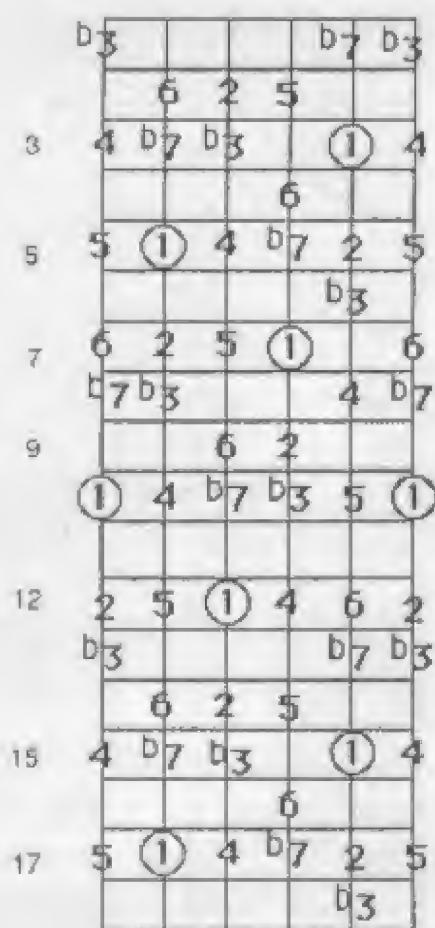
Min7 chord as a II in major: use Dorian mode = mode II of major = 1 2 b3 4 5 6 b7

EXAMPLE:

Dmin7: use D Dorian = mode II of C major = D E F G A B C.

D Dorian needs to be learned in the following manner all over the neck:

Ex. 1: D DORIAN



Knowing the intervals that are being played is very important; knowing where the 5 of D is, where the b7 of D is etc. Remember, Dorian means 1 2 b3 4 5 6 b7 from any root.

Learn Dorian in other keys as well.

EXAMPLE:

Amin7: use A Dorian = mode II of G major = 1 2 b3 4 5 6 b7 from A = A B C D E F# G.

Now, let's see what the other approaches offer us, given the choice of the Dorian mode.

Ex. 2 D Dorian over Dmin7.

CHORD TYPE: Min7

APPROACH: Dorian Pentatonics/Blues

The second approach is pentatonics/blues. To see which ones are available, we need to look at the harmonized scale of Cmaj (since our example, Dmin7, is being treated as a II in C).

Cmaj7	Dmin7	Emin7	Fmaj7	G7	Amin7	Bmin7(b5)
I	II	III	IV	V	VI	VII

Minor pentatonics (1 b3 4 5 b7) and minor blues (1 b3 4 b5 nat5 b7) can be extracted from the minor 7 chords (II III and VI) of any major scale. Therefore, we have Dmin, Emin, and Amin pent/blues which can all be played over Dmin7 since they are all related through the harmonized scale. Emin pent/blues is specifically Dorian because it contains a B (6 of D).

Now, as far as pentatonics and blues go, Dmin pentatonics and Dmin blues played over Dmin7 are okay, but sound a little too ordinary. Combining the other two pentatonics or blues (Emin and Amin) with Dmin pent/blues creates a fresher sound.

FORMULA: To transpose this to other keys: min pent/blues from root, [up] whole step or [up] 5th from the chord root.

Let's Listen.

Ex. 3 Dmin pentatonic over Dmin7

A musical staff in G clef. The top line shows a Dmin pentatonic scale: D, E, G, A, B. The bottom line shows a Dmin7 chord: D, F, A, C. The scale is played in a eighth-note pattern.

Ex. 4 Emin pentatonic over Dmin7

A musical staff in G clef. The top line shows an Emin pentatonic scale: E, G, A, C, D. The bottom line shows a Dmin7 chord: D, F, A, C. The scale is played in a eighth-note pattern.

Ex. 5 Amin pentatonic over Dmin7

A musical staff in G clef. The top line shows an Amin pentatonic scale: A, C, D, F, G. The bottom line shows a Dmin7 chord: D, F, A, C. The scale is played in a eighth-note pattern.

Combining all three min pentatonics (Dmin, Emin, Amin) over Dmin7.

Ex. 6

D Min Pent.

E Min Pent.

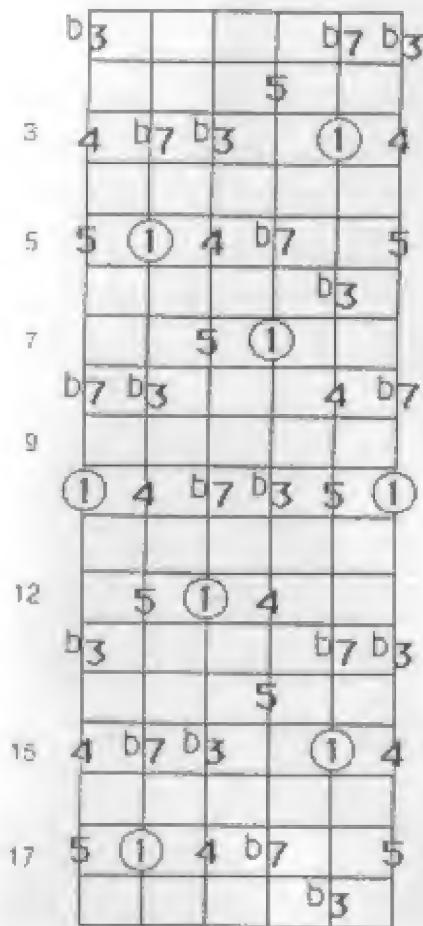
A Min Pent.

The following examples are written out with the intervals as they affect the Dmin7.

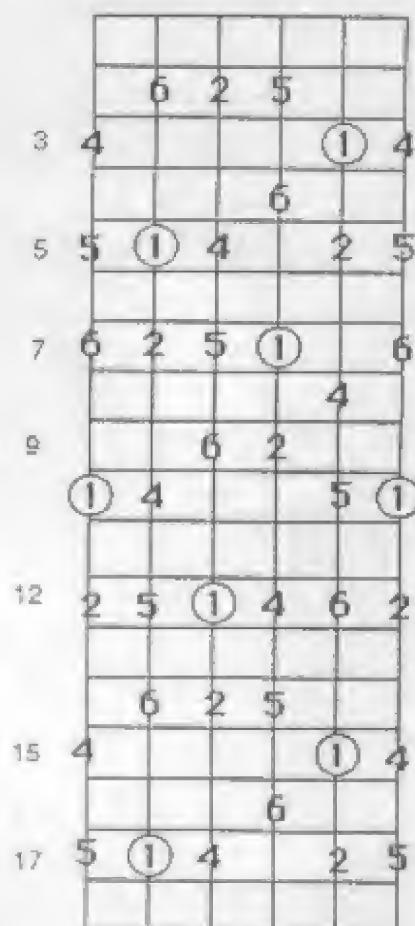
Example: Emin pent = 1 b3 4 5 b7 from E = E G A B D = 2 4 5 6 1 of D Dorian.

Also, writing out the whole neck frees you up to select any fingering or position for these ideas.

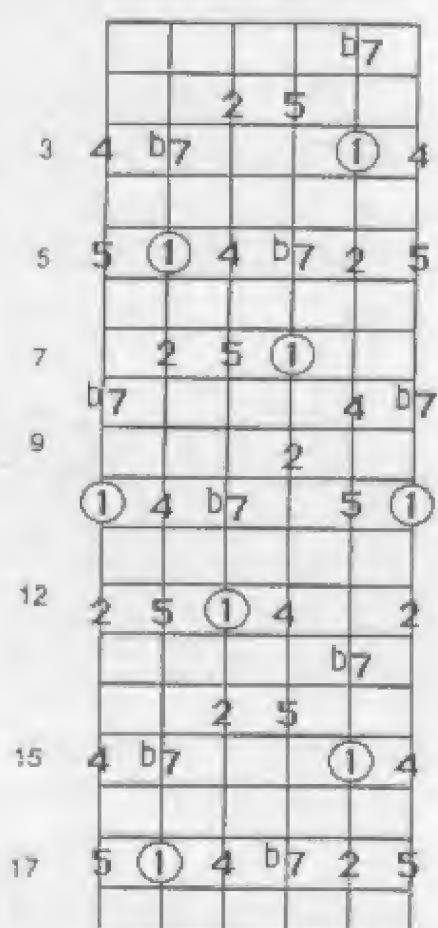
Ex. 7 D Min Pent



Ex. 8 E Min Pent



Ex. 9 A Min Pent



CHORD TYPE: Min 7

APPROACH: Dorian Arpeggios

The next approach is arpeggios.

Example: Dmin7

What is Dmin7? 1 b3 5 b7 from D = D F A C

I rarely play a Dmin7 arpeggio over Dmin7 because it sounds frightfully dull, chaps! But there is a remedy and it's quite simple, really. Let's extend the chord up to 9 and toss out the 1.

~~1~~ b3 5 b7 9 = ~~D~~ F A C E = Fmaj7

Now, if you play an Fmaj7 arp over a Dmin7 chord, you sound automatically like George Benson; it's much hipper. We're now playing b3 5 b7 9 which is creating a Dmin9 sound without us bothering to play a D note. **FORMULA:** maj7 arp [up] b3.

Ex. 10 Fmaj7 arpeggio over Dmin7

Okay, that was a good idea. Such a good idea, in fact, that we're going to do it again, except this time we'll extend to 11.

~~1~~ b3 5 b7 9 11 = ~~D~~ F A C E G

This time we're left with A C E G which is Amin7; this arp sounds terrific over Dmin7. **FORMULA:** min7 arp [up] 5th. Let's listen.

Ex. 11 Amin7 arpeggio over Dmin7.

These are my first two choices for attacking a min7 chord with arpeggios.

Now let's look at the rest of the harmonized scale. ALL DIATONIC ARPEGGIOS SOUND GREAT over Dmin7. Let's listen to all of them.

Cmaj7 Dmin7 Emin7 Fmaj7 G7 Amin7 Bmin7(b5)

Ex. 12

Diatonic arpeggios from Cmaj over Dmin7 (cascading effect).

8Va

Loco

Cmaj7 Bmin7b5 Amin7 G7

Fmaj7 Emin7 Dmin7 Cmaj7

Here's a pattern for learning one-octave arps moving up or down in 4ths (this is a very musical way to practice them).

Ex. 13

Diatonic arpeggio's in 4ths over Dmin7 chord

Cmaj7 G7 Dmin7 Amin7 Bmin7b5 Emin7 Amin7 Dmin7

Emin7 Bmin7b5 Fmaj7 Cmaj7 Dmin7 G7 Cmaj7 Fmaj7

G7 Dmin7 Amin7 Emin7 Fmaj7 Bmin7b5 Emin7 Amin7

BVa.

Ex. 13 cont.)

CHORD TYPE: Min7

APPROACH: Dorian Triads

Now let's look at the triad approach.

ALL DIATONIC TRIADS from D Dorian (Cmajor) sound good over Dmin7. But the best effect comes from using the diatonic MAJOR triads. Major triads are found on I, IV and V in every major key. In C, that's C, F and G. **FORMULA:** maj triads [down] whole step, [up] min 3rd, [up] 4th. G triad over Dmin7 is specifically Dorian because it contains a B (6 of D). Let's listen to each of these triads over Dmin7.

Ex. 14 Cmaj, Fmaj and Gmaj triads over Dmin7.

C triad (my favorite) = C E G = b7 9 11 of D.

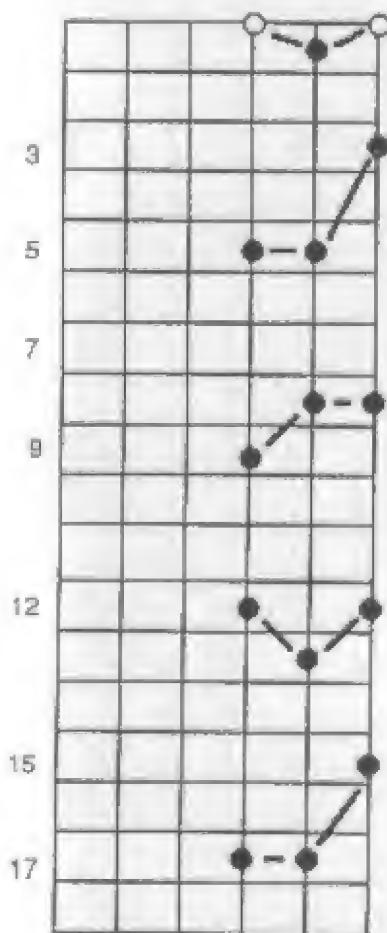
C triad gives you the upper extensions of a Dmin7 chord. Simply think of this formula: maj triad [down] whole step.

Fmaj triad = F A C = b3 5 b7 of D. This triad is the same as Dmin7 without the D. This sounds okay; just re-defining the chord without saying anything new.

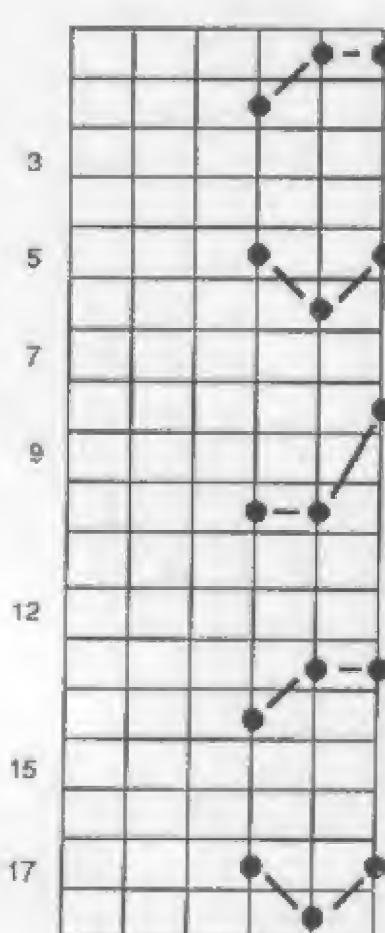
Gmaj triad = G B D = 11, 13, root of Dmin7. Of the major triads, this one is the least related to the chord. It has a very interesting sound, very suspended or unresolved. The trick to making these triads sound good is to mix them all up.

Learn triads on each group of three strings; G B E, D G B, A D G, E A D, horizontally down the neck in 1 4 5 motion. Let's listen.

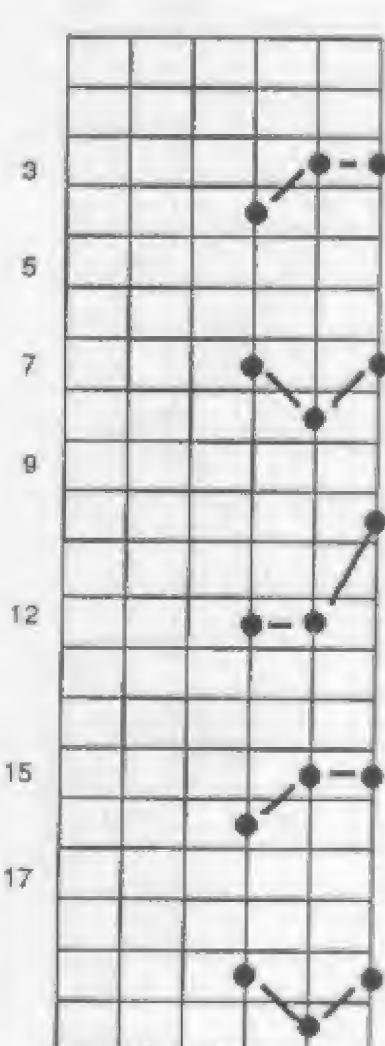
Ex. 15 C TRIADS



Ex. 16 F TRIADS

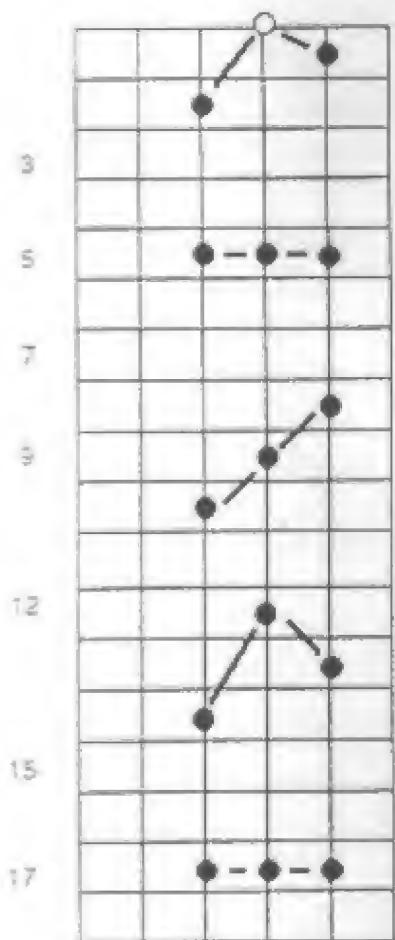


Ex. 17 G TRIADS

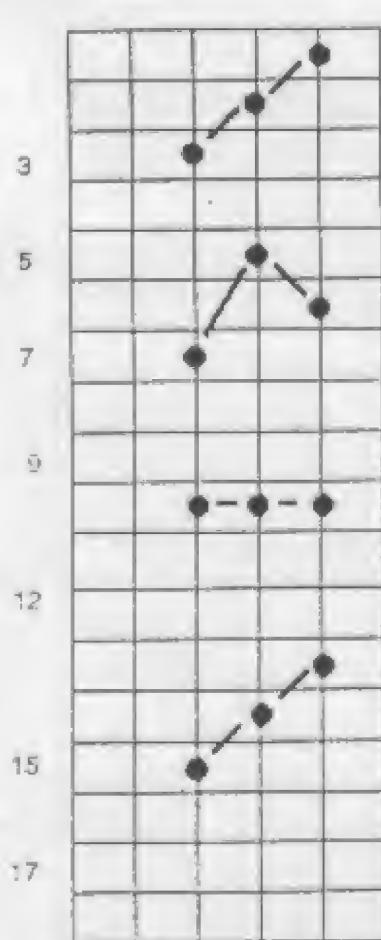


I, IV, V Triads from Cmaj on D G & B strings.

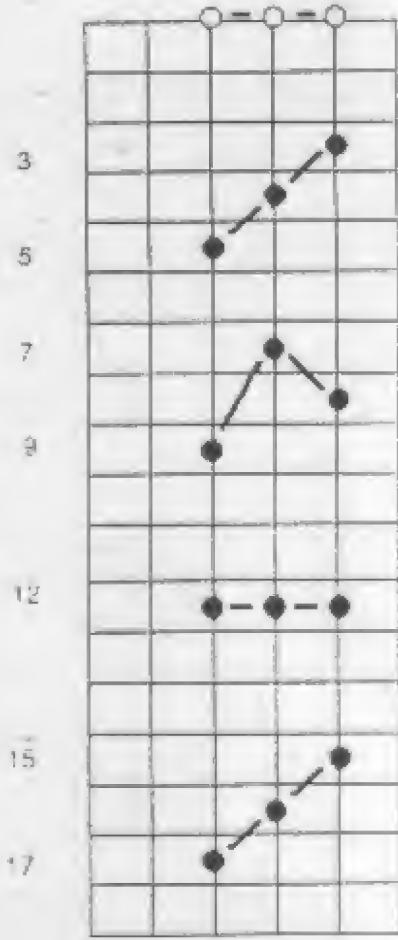
Ex. 18 C TRIADS



Ex. 19 F TRIADS

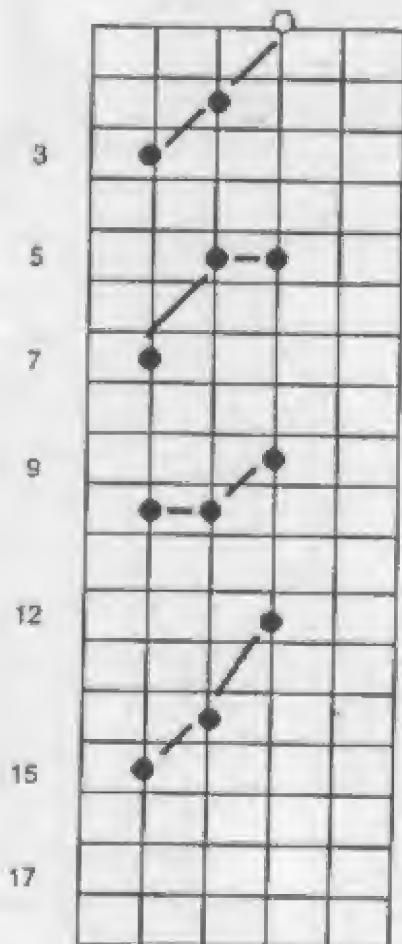


Ex. 20 G TRIADS

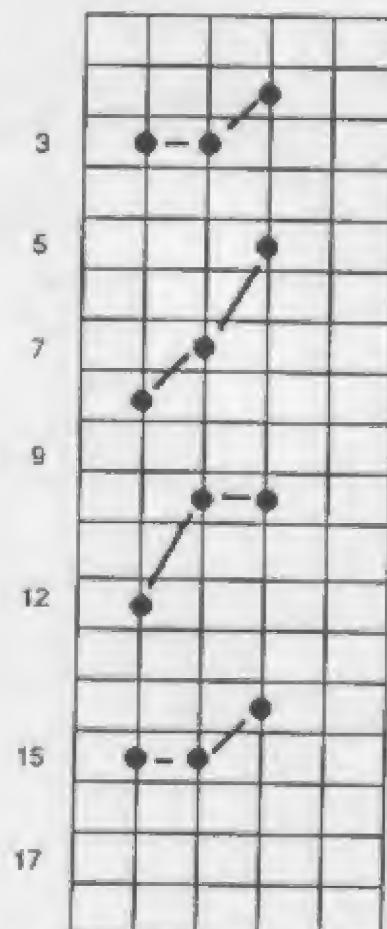


I, IV, V Triads in Cmaj on A, D & G strings.

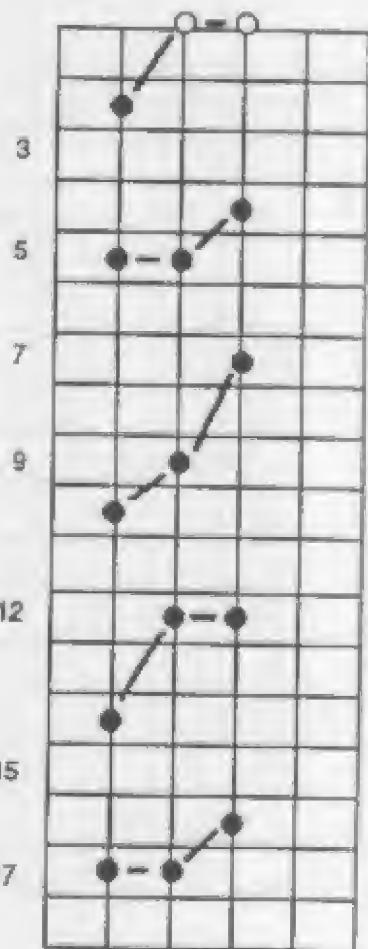
Ex. 21 C TRIADS



Ex. 22 F TRIADS

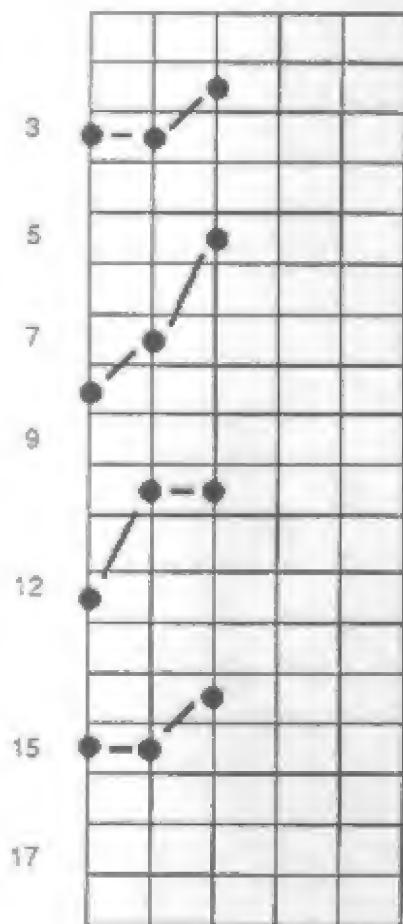


Ex. 23 G TRIADS

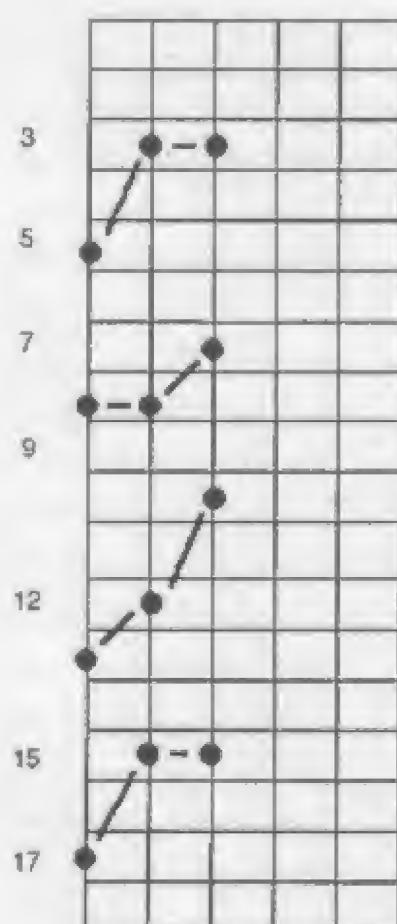


I, IV, V Triads in Cmaj on E, A & D strings.

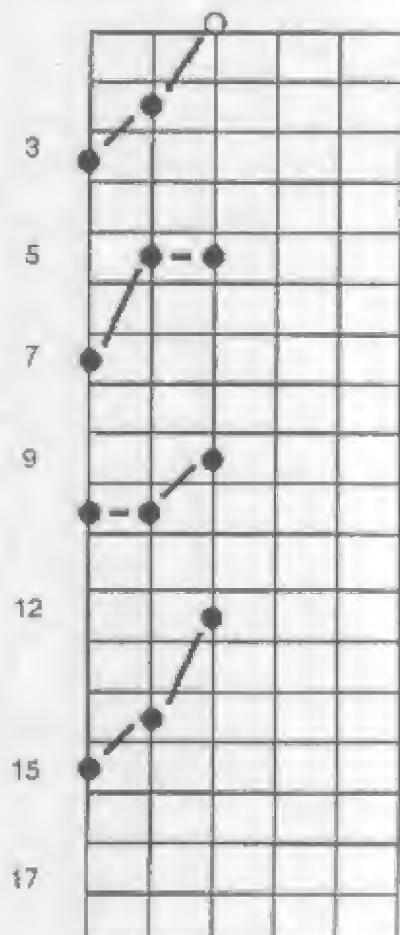
Ex. 24 C TRIADS



Ex. 25 F TRIADS



Ex. 26 G TRIADS



Note that you should hear these triads as they affect the Dmin7 chord. They sound hip against the chord, but ordinary by themselves.

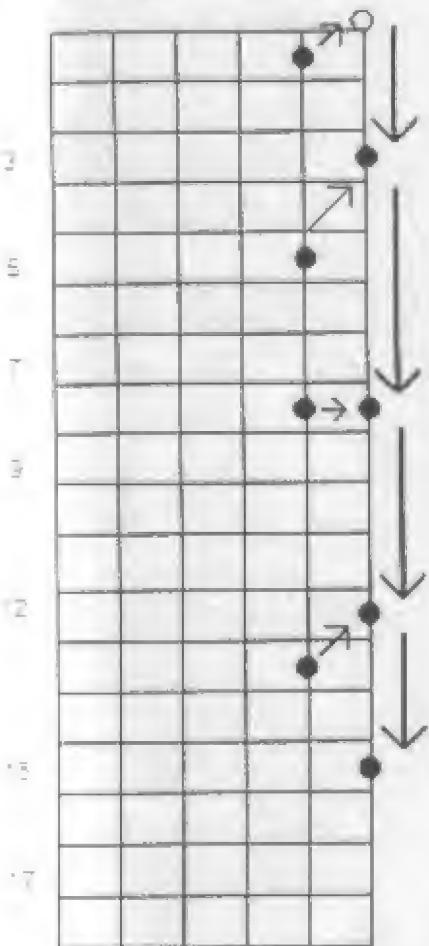
Let's listen to this triad exercise which incorporates our next subject as well, two-string triads.

Ex. 27 Two string triads from Cmaj over Dmin7.

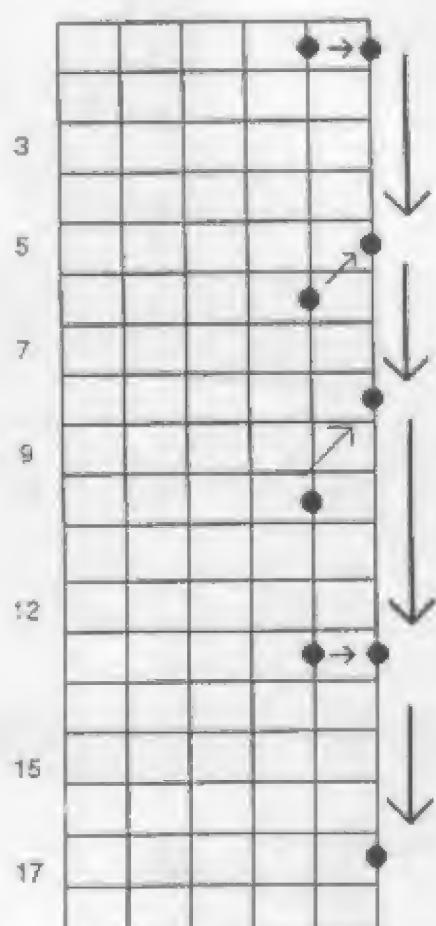
Music score for Ex. 27. The top staff is a treble clef staff with a 3/4 time signature. The bottom staff is a bass clef staff with a 3/4 time signature. The music is in 3/4 time. The score includes fingerings and a tempo marking of 13.

Now, let's look at two-string triads as opposed to the three-string triads.

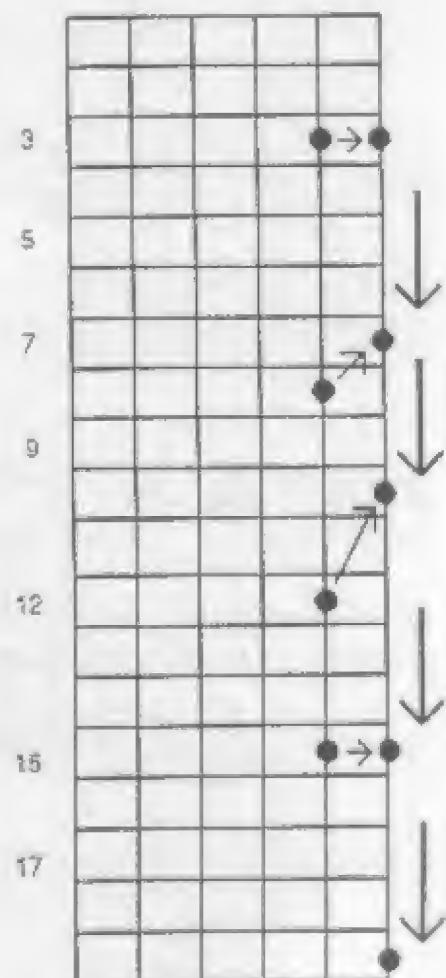
Ex. 28 C TRIADS



Ex. 29 F TRIADS

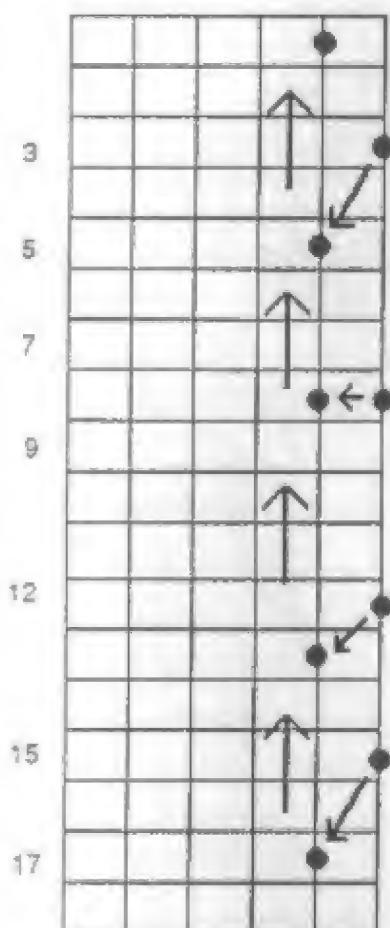


Ex. 30 G TRIADS

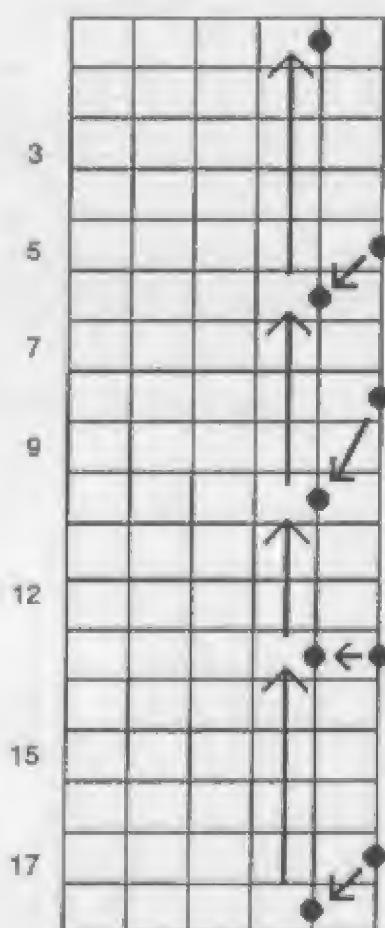


Variation, 2-string triads

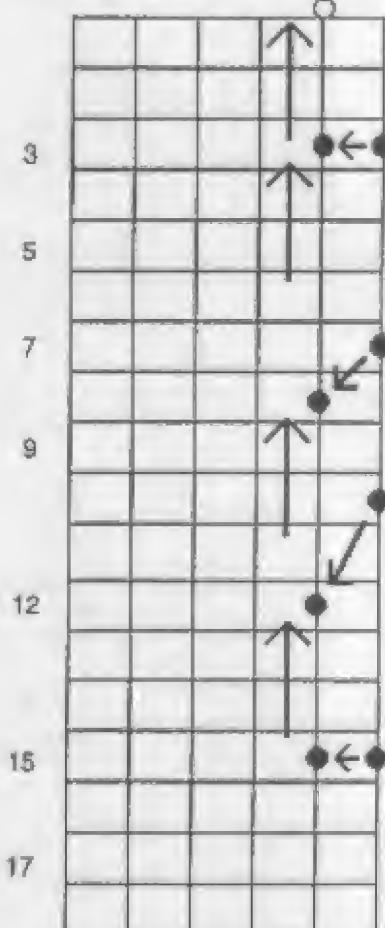
Ex. 31 C TRIADS



Ex. 32 F TRIADS



Ex. 33 G TRIADS



CHORD TYPE: Min7

APPROACH: Dorian Intervals

Any intervals can be chosen. I find 3rds, 4ths, 5ths and 6ths to be the most useful and musical, so let's examine those.

Diatonic 3rds (using the notes of D Dorian = the same notes as C major): C - E, D - F, E - G, F - A, G - B, A - C, B - D.

Let's listen to these over Dmin7.

Ex. 34

Dmin7

Diatonic 3rds from Cmaj.

35

Dmin7

3rds on the E & B strings only.

Diatonic 4ths: these sound more angular, oriental almost. Let's listen, first separately, then double stops.

Ex. 36

D_{min}?

4ths as a Scale.

Ex. 36 cont

Dmin7

10 12 13 12 10 10 12 13 | 10 12 13 12 10 10 12 13 etc →

Ex. 37

Dmin7

4ths on the E & B strings only.

1 3 3 3 5 5 7 9 9 10 10 12 12 13 13 15 15 13 13 12 12 10 10 9 9 | 1 3 3 3 5 5 7 9 9 10 10 12 12 13 13 15 15 13 13 12 12 10 10 9 9 etc →

Ex. 38

Dmin7

5ths sound unusual. Let's listen.

1 3 3 3 5 5 7 9 9 10 10 12 12 13 13 15 15 13 13 12 12 10 10 9 9 | 1 3 3 3 5 5 7 9 9 10 10 12 12 13 13 15 15 13 13 12 12 10 10 9 9 etc →

10 12 12 13 11 16 12 13 10 12 10 12 13 12 10 10 12 13 | 10 12 12 13 11 16 12 13 10 12 10 12 13 12 10 10 12 13 etc →

Ex. 39

Dmin7

5ths on the E & B strings.

Musical staff for Ex. 39. The staff shows a Dmin7 chord. The notes are: B (5th on E), D (3rd on E), F# (5th on B), and A (root on B). The B string is muted (X). The notes are marked with dots on the staff. The tab below shows the fingerings: 1, 3, 5, 5, 7, 6, 8, 10, 12, 12, 13, 15, 15, 17, 17, 19, 15, 17, 13, 15.

Ex. 40

Dmin7

Sixths sound very nice. Let's listen.

Musical staff for Ex. 40. The staff shows a Dmin7 chord. The notes are: B (6th on E), D (4th on E), F# (6th on B), and A (root on B). The B string is muted (X). The notes are marked with dots on the staff. The tab below shows the fingerings: 8, 7, 9, 12, 10, 9, 7, 10, 12, 10, 9, 10, 12, 12, 9, 10, 12, 12.

Musical staff for Ex. 40, continuation. The staff shows a Dmin7 chord. The notes are: B (6th on E), D (4th on E), F# (6th on B), and A (root on B). The B string is muted (X). The notes are marked with dots on the staff. The tab below shows the fingerings: 10, 10, 9, 8, etc. →

Ex. 41

Dmin7

Sixths diatonic to Cmaj on the E & G strings only.

Musical staff for Ex. 41. The staff shows a Dmin7 chord. The notes are: B (6th on E), D (4th on E), F# (6th on G), and A (root on G). The G string is muted (X). The notes are marked with dots on the staff. The tab below shows the fingerings: 0, 2, 4, 5, 7, 9, 10, 12, 13, 15, 17, 19, 20, 19. A dynamic instruction "9va" with an arrow is shown above the staff.

You should be beginning to see how many possibilities there are when approaching a simple min7 chord. The min7 chord (Dorian) has so many possibilities because every note of the Dorian mode sounds good against it; there are no "avoid" notes.

When you hear good improvisers, you can tell how well versed they are. They'll play a phrase that goes up a minor pentatonic, comes down an arpeggio, up again in 4th intervals and down again with a diatonic triad; you get the picture. An intelligent soloist includes many different approaches or colours. That's how one can tell how long and hard that person has studied music and the instrument.

So, summing up this section on min7 (Dorian), we can see that there are certain formulas that will always work and always sound good against any min7 chord.

SUMMARY:

FORMULAS FOR SOLOING OVER MIN7 (DORIAN) IN ANY KEY.

1. Scale: Dorian = mode II of major = 1 2 b3 4 5 6 b7 (9 11 13)
2. Pentatonics/Blues: from root, [up] whole step, [up] 5th.
3. Arpeggios: all diatonic arps, especially maj7 [up] min 3rd, min7 [up] 5th.
4. Triads: all diatonic triads, especially the major triads which are [down] whole step, [up] min 3rd, [up] 4th.
5. Intervals: diatonic 3rds, 4ths, 5ths, 6ths

Now I'll select just one of my personal favorites from each category, really simplifying.

1. Scale: Dorian
2. Pentatonic/Blues: min pent/blues [up] 5th
3. Arpeggio: maj7 [up] min3rd
4. Triad: maj [down] whole step
5. Intervals: 4ths

So over Gmin7 for example, using the above formulas we arrive at the following:-

1. Scale: G Dorian = mode II of Fmaj = 1 2 b3 4 5 6 b7; from G = G A Bb C D E F
2. Pentatonic/Blues: Dmin pent (D F G A C) or Dmin blues (D F G Ab Anat C)
3. Arpeggio: Bbmaj7 arp (Bb D F A)
4. Triad: Fmaj
5. Intervals: 4ths diatonic to G Dorian: G-C, A-D, Bb-E etc.

Min7 chord progressions to practice:

Ex. 42 0 min?

F mln?

Ab min7

B min?

Ex. 43

A min7	/	C# min7	/
A Dorian		C# Dorian	

E min7	x	C min7	x
E Dorian		C Dorian	

Now, some musical examples. Diatonic 3rds in Cmaj over Dmin7.

Ex. 44

"CAT PAUSE"

84a

Locco

TEX 45

Dmin7 (D Dorian)

"CAT SNEEZE" (adapted from progression in Ex. 42)

Fmin7 (F Dorian)

11. *3rds In F Dorian*

12. *3rds In F Dorian*

Ex. 45 cont

Abmin7 (Ab Dorian)

Eb min pent Gbmaj Db maj Cb maj

Bmin7 (B Dorian)

D maj7 arp E maj D maj7 arp

Make up your own melodies from the formulas discussed in the Dorian chapter over the sample chord progressions, examples 42 and 43.

CHORD TYPE: Min7

APPROACH: Aeolian Scale

Min7 chord as a VI in major: use Aeolian mode (mode VI of major) = 1 2 b3 4 5 b6 b7.
Aeolian is also known as natural minor.

Ex. 46

D Aeolian						
b3	b6		b7	b3		
	2	5				
3	4	b7	b3	b6	1	4
5	5	1	4	b7	2	5
b6				b3	b6	
7	2	5	1			
b7	b3	b6		4	b7	
9		2				
11	1	4	b7	b3	5	1
				b6		
12	2	5	1	4		2
b3	b6			b7	b3	
	2	5				
15	4	b7	b3	b6	1	4
17	5	1	4	b7	2	5
b6				b3	b6	

Example: Dmin7: use D Aeolian = mode VI of Fmaj = D E F G A Bb C. You may sometimes see a min7(#5) chord indicated. Dmin7(#5) = D F Bb C. (It may also be written Fsus/D or Bb/D.) Remember that #5 = b6. So you can see that this chord would fit the Aeolian mode (which has a b6) and not the Dorian (which has a nat6). Other than when a min7(#5) chord is indicated, if you choose to use the Aeolian approach for a min7 chord, the b6 note will generally be used as just a passing tone, as it's a bit dissonant; so just be careful with it.

Remember, Aeolian means 1 2 b3 4 5 b6 b7 from any root. Learn Aeolian in other keys as well.

CHORD TYPE: Min7

APPROACH: Aeolian Pentatonics/Blues

Our example is Dmin7 (Aeolian) = VI of Fmaj. So we need to look at the harmonized scale of F major.

Fmaj7 Gmin7 Amin7 Bbmaj7 C7 Dmin7 Emin7(b5)
I II III IV V VI VII

Remember that minor pentatonics (1 b3 4 5 b7) and minor blues (1 b3 4 b5 nat 5 b7) can be extracted from the II, III

and VI of any major scale. From Fmaj, that's Gmin, Amin and Dmin pent/blues which can be played over Dmin7.

Dmin pent or blues sound good.

Amin pent or blues sound good.

Gmin pent or blues contains a Bb; so if a Dmin7(#5) chord is indicated, it sounds very good; but if just a Dmin7 chord is indicated, be careful with it.

Notice that Dmin pent/blues and Amin pent/blues were also in the Dorian approach to Dmin7.

FORMULAS: min pent/blues from root and [up] 5th. Min pent/blues [up] 4th over a min7(#5) chord.

CHORD TYPE: Min7

APPROACH: Aeolian Arpeggios

Dmin7 = 1 b3 5 b7 from D = D F A C.

As before, let's extend Dmin7 to find some more interesting arps to play.

b3 5 b7 9 = F A C E = Fmaj7

5 b7 9 11 = A C E G = Amin7

These two arps sound great over Dmin7. Note that these are the same arps we arrived at when extending Dmin7 in the Dorian mode.

Once again, the only difference between Dorian and Aeolian is the 6 (13) is nat in Dorian and flat in Aeolian. Therefore, we have to extend further to discover an arp which is specifically Aeolian (includes a b6 = b13).

b7 9 11 b13 = C E G Bb = C7

Let's listen to this over Dmin7.

Ex. 47

C7 arpeggio over Dmin7

All arps diatonic to Fmaj sound good over Dmin7.

Fmaj7 Gmin7 Amin7 Bbmaj7 C7 Dmin7 Emin7(b5)

Let's listen.

Ex. 48

F maj7 G min7 A min7 Bb maj7

C7 D min7 E min7(b5) F maj7

Arps over Dmin7 that are specifically Aeolian:

Gmin7 = G Bb D F = 11 b13 1 b3 of Dmin7.

Bmaj7 = Bb D F A = b13 1 b3 5 of Dmin7.

C7 = C E G Bb = b7 9 11 b13 of Dmin7.

Emin7(b5) = E G Bb D = 9 11 b13 1 of Dmin7.

That leaves three which are common to both Dorian and Aeolian:

Fmaj7 = F A C E = b3 5 b7 9 of Dmin7.

Amin7 = A C E G = 5 b7 9 11 of Dmin7.

Dmin7 = D F A C = 1 b3 5 b7 of Dmin7.

CHORD TYPE: Min7

APPROACH: Aeolian Triads

Example: Dmin7 = VI of Fmaj, so we need to look at the harmonized Fmaj scale.

Fmaj7 Gmin7 Amin7 Bbmaj7 C7 Dmin7 Emin7(b5)

All diatonic triads will work over Dmin7, especially the major triads, found on I, IV and V of major. In F, that's F, Bb and C.

Let's listen to these three triads over Dmin7.

Ex. 49

F, Bb and C triads (Aeolian) over Dmin7.

Bb triad is specifically Aeolian [good over Dmin7(#5)].

C and F triads are common to both the Aeolian and Dorian approaches to Dmin7.

FORMULAS: maj triads [down] whole step, [up] min3rd. Also maj triad on [up] b6 (Aeolian only).

CHORD TYPE: Min7

APPROACH: Aeolian Intervals

3rds, 4ths, 5ths, and 6ths all work fine. You can use the interval examples (Ex. 34-41), but over an Amin7 VI chord instead of Dmin7.

SUMMARY:

FORMULAS FOR SOLOING OVER MIN7 AS VI IN MAJOR (AEOLIAN) IN ANY KEY

1. Scale: Aeolian
2. Pent/Blues: min from root, [up] 4th, [up] 5th.
3. Arpeggios: all those diatonic to Aeolian, especially maj7 [up] min3rd, min7 [up] 5th.
4. Triads: all those diatonic to Aeolian especially, major triads [down] whole step, [up] min3rd, [up] min 6th.
5. Intervals: 3rds, 4ths, 5ths, 6ths.

MY FAVORITES:

1. Scale: Aeolian
2. Pent/blues: min [up] 5th
3. Arpeggio: maj7 [up] min3rd
4. Triad: [down] whole step
5. Interval: 3rds.

Progressions to Practice (Aeolian)

Ex. 50

A Aeolian throughout

Ex. 51

D Aeolian throughout

Ex. 52

G Aeolian

Bb Aeolian

D Aeolian

Ex. 53

Amin7

"STICKMAN"

(based on Ex. 50)

G triad

F triad

Ex. 53 cont

F

G triad 3rd 4th

Amin7

Amin triad G triad F triad

A min triad F maj7 arp

3rds Scale 4ths

CHAPTER II: MAJOR 7 CHORDS

Now let's move on to the maj7 chord. A lot of people have a hard time making a maj7 sound bluesy, a la Carlton. Some of the mysteries will unfold with the help of our little systematic approach.

Just as a min7 chord can be treated in two ways, as a II in major (Dorian) or as a VI in major (Aeolian), the maj7 chord can also be approached in two different ways:

2a Maj7 as a I chord in major: the chord = 1 3 5 7 (9 11 13); the scale to use is Major = 1 2 3 4 5 6 7 = mode IV of major
(9) (11) (13)

2b Maj7 as a IV chord in major: the chord = 1 3 5 7 (9 #11 13); the scale to use is Lydian mode = 1 2 3 #4 5 6 7 = mode IV of major
(9) (#11) (13)

Example: Cmaj7 can be I in C major

Cmaj7 I	Dmin7 II	Emin7 III	Fmaj7 IV	G7 V	Amin7 VI	Bmin7(b5) VII
------------	-------------	--------------	-------------	---------	-------------	------------------

or IV in G major.

Gmaj7 I	Amin7 II	Bmin7 III	Cmaj7 IV	D7 V	Emin7 VI	F#min7(b5) VII
------------	-------------	--------------	-------------	---------	-------------	-------------------

You can see that the chords differ only by the 11, which is nat11 over a maj7 chord as I, and #11 over a maj7 chord as IV. The scales differ only by the nat 4 in the Major scale versus the #4 in the Lydian mode. (4 = 11, #4 = #11.)

Let's look first at maj7 as a I (Major Scale).

CHORD TYPE: Maj7

APPROACH: Major Scale

Maj7 chord as a I:

Use the Major scale = 1 2 3 4 5 6 7.

Example:

Cmaj7 as a I in C:

Use Cmaj scale = C D E F G A B.

Ex. 54

1	2	3	4	5	6	7
Cmaj Scale						
4				1	4	
	7	3	6			
5	1	4		2	5	
				7		
6	2	5	1	3	6	
					4	
7	3	6	2			7
1	4			5	1	
2	5	1	4	6	2	
3	6	2	5	7	3	
4				1	4	
	7	3	6			
5	1	4		2	5	
				7		
6	2	5	1	3	6	
					4	

Ex. 55.

Cmaj Scale

CHORD TYPE: Maj7

APPROACH: Pentatonics/Blues

For Cmaj7 as I in C, we need to look at the harmonized C Major scale.

Cmaj7 Dmin7 Emin7 Fmaj7 G7 Amin7 Bmin7(b5)
 I II III IV V VI VII

The minor pentatonics and blues can be extracted from the II, III and VI of the Major scale. In C, that's Dmin, Emin and Amin.

Let's Listen.

Ex. 56.

Emin pentatonic over Cmaj7

Okay - Dmin pent sounds awful, so we avoid it.

Amin sounds only okay.

Emin sounds the best of these three.

Amin and Emin pent are common to both the Major and Lydian approaches to maj7 because they contain no 4 or #4 of C.

FORMULA: Min pent/blues [up] 3rd, [up] 6th.

Ex. 57

Blues scales [up] 3rd, [up] 6th over Cmaj7.

CHORD TYPE: Maj7

APPROACH: Major Arpeggios

The next approach is arpeggios.

Cmaj7 = 1 3 5 7 = C E G B

Let's extend. 3 5 7 9 = E G B D = Emin7

Let's Listen.

Ex. 58

Emin7 Arpeggio over Cmaj7

Emin7 arp is very good over Cmaj7. Now the next extension is 5 7 9 11. There is a problem with the 11 (4) doesn't sound good over a maj7. You're better off using the Lydian approach for the higher extensions since the #11 sounds better than the nat11. (The 4 or 11 won't fit in passing).

FORMULA: min7 arp [up] 3rd

CHORD TYPE: Maj7

APPROACH: Major Triads

Example: Cmaj7 as I of C. The three major triads, I, IV and V, in C are C, F and G.

Over Cmaj7, C triad sounds just okay*

F doesn't sound any good*

G sounds very good

FORMULA: maj triad [up] 5th.

*Note that C and F triads sound better when used over a Cmaj chord with no 7 and all three sound great over a C bass.

Ex. 59

G maj triad over Cmaj7

Handwritten musical notation for Exercise 59. The notation is on a single staff with a treble clef. It consists of a series of eighth-note chords. The first four chords are G major triads (G-B-D) with the bass note C sustained. The fifth chord is a G major 7th chord (G-B-D-G). The bass line is marked with '18 Va' and 'Loco'.

CHORD TYPE: Maj7

APPROACH: Major Intervals

3rds, 4ths, 5ths and 6ths all work fine. To practice, play exercises 34-41 over a Cmaj7 Chord.

SUMMARY:

FORMULAS FOR SOLOING OVER MAJ7 AS A I CHORD (MAJOR SCALE).

1. Scale: Major = 1 2 3 4 5 6 7
2. Pentatonic/Blues: min [up] 3rd, min [up] 6th.
3. Arpeggios: min7 [up] 3rd.
4. Triads: maj [up] 5th
5. Intervals: 3rds, 4ths, 5ths, 6ths.

MY FAVORITES:

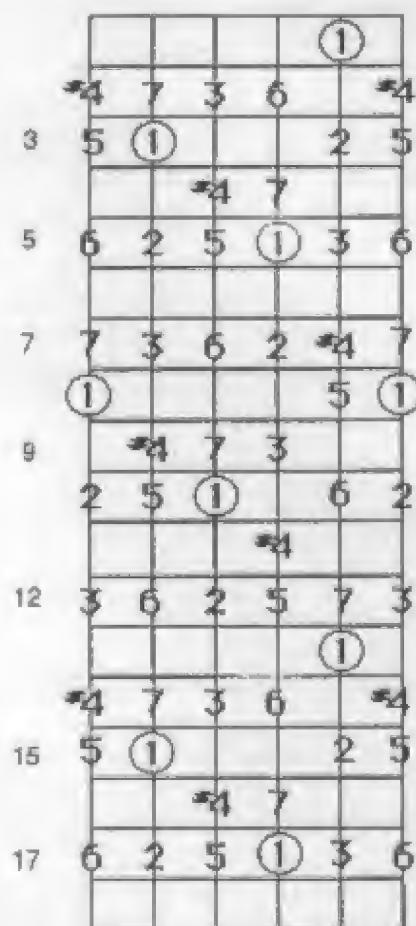
1. Scale: Major
2. Pentatonic/Blues: min [up] 3rd
3. Arpeggio: min7 [up] 3rd.
4. Triad: maj [up] 5th
5. Intervals: 6ths.

So, for Dmaj7 as a I in D, using the above formulas we get . . .

1. Scale: Dmaj = D E F# G A B C#
2. Pent/Blues: F#min
3. Arp: F#min7
4. Triad: Amaj
5. Intervals: 6ths diatonic to Dmaj.

CHORD TYPE: Maj7
APPROACH: Lydian Scale

Ex. 60 LYDIAN



Maj7 chord as a IV in major: use the Lydian mode = 1 2 3 #4 5 6 7 = mode IV of major.

Example: Cmaj7 as a IV. C is IV of G.

Gmaj7	Amin7	Bmin7	Cmaj7	D7	Emin7	F#min7(b5)
I	II	III	IV	V	VI	VII

C Lydian = 1 2 3 #4 5 6 7 from C = C D E F# G A B = the same notes, same harmonized scale as G major.

Ex. 60(a)

C Lydian over Cmaj7

Any maj7 (#11) chord is Lydian.

Don't be thrown by a maj7(b5) chord. Remember, b5 = #4, so this fits into the Lydian approach.

CHORD TYPE: Maj7

APPROACH: Lydian Pentatonics/Blues

Example: Cmaj7 (Lydian)

C Lydian is mode IV of Gmaj so let's look at the harmonized Gmaj scale.

Gmaj7	Amin7	Bmin7	Cmaj7	D7	Emin7	F#min7(b5)
I	II	III	IV	V	VI	VII

Remember, that the minor pent (1 b3 4 5 b7) and minor blues (1 b3 4 b5 nat 5 b7) can be extracted from II, III and VI of major. Therefore, in C Lydian = Gmaj, we have Amin, Bmin and Emin pent or blues which can be played over Cmaj7.

Let's listen.

Ex. 61

Bmin Pentatonic over Cmaj7

Ex. 62

Combination Emin and Bmin Blues over Cmaj7

Amin sounds only okay.

Bmin and Emin both sound very good.

Bmin pent or blues over Cmaj7 is specifically Lydian because it contains an F#.

So the gist is, over a Cmaj7 you can play an Emin pent/blues (**FORMULA:** min pent/blues [up] 3rd) whether you're using the Major or Lydian approach. Use a Bmin pent/blues (**FORMULA:** min [down] 1/2 step) if you wish to play specifically Lydian.

CHORD TYPE: Maj7

APPROACH: Lydian Arpeggios

$$\text{Cmaj7} = 1 \ 3 \ 5 \ 7 = \text{C E G B}$$

Let's extend.

$$3 \ 5 \ 7 \ 9 = \text{E G B D} = \text{Emin7}$$

Emin7 arp is very good over Cmaj7. **FORMULA:** min7 arp [up] 3rd.

$$5 \ 7 \ 9 \ #11 = \text{G B D F\#} = \text{Gmaj7}$$

$$7 \ 9 \ #11 \ 13 = \text{B D F\# A} = \text{Bmin7}$$

These sound good too. Gmaj7 and Bmin7 played over Cmaj7 are specifically Lydian because of the #11 (#4).

All diatonic arpeggios from Lydian work fine.

FORMULAS: maj7 arp [up] 5th, min7 arp [down] 1/2 step.

Ex. 63 Gmaj7 over Cmaj7 chord

Bmin7 over Cmaj7 chord

CHORD TYPE: Maj7

APPROACH: Lydian Triads

All triads, diatonic to C Lydian (same notes as Gmaj) sound good over Cmaj7. Let's examine the major triads, which are found on I, IV and V of major. In Gmaj, that's G, C and D.

G triad over Cmaj7 sounds very good. FORMULA: maj triad [up] 5th.

C sounds just okay.

D sounds very good. FORMULA: Maj triad [up] whole step.

D triad over Cmaj7 is specifically Lydian because of the F# (#11 of C).

Ex. 64 Dmaj triad over Cmaj7 chord

CHORD TYPE: Maj7

APPROACH: Intervals

3rds, 4ths, 5ths and 6ths diatonic to Lydian (mode IV of major) all sound great.

For practice, play Ex. 34-41 over a Fmaj7 chord (IV in Cmaj).

SUMMARY:

FORMULAS FOR SOLOING OVER MAJ7 (LYDIAN)

1. Scale: Lydian = 1 2 3 #4 5 6 7 = mode IV of major
2. Pent/blues: min [up] 3rd, [down] 1/2 step, [up] 6th.
3. Arpeggios: All diatonic arps, especially min7 [up] 3rd, maj7 [up] 5th, min7 [down] 1/2 step.
4. Triads: All diatonic triads, especially maj [up] 5th, maj [up] whole step.
5. Intervals: 3rds, 4ths, 5ths, 6ths.

MY FAVORITES:

1. Scale: Lydian
2. Pent/blues: [down] 1/2 step
3. Arp: min7 [down] 1/2 step
4. Triad: maj [up] whole step
5. Interval: 6ths

So over Amaj7, using the above formulas, we get:

1. Scale: A Lydian = A B C# D# E F# G# = mode IV of Emaj
2. Pent/blues: G#min
3. Arp: G#min7
4. Triad: B
5. Interval: 6ths diatonic to A Lydian

CHORD PROGRESSIONS

Ex. 65

A maj7

C maj7

Eb maj7

Gb maj7

A major or A lydian

C major or C lydian

Eb major or Eb lydian

Gb major or Gb lydian

Ex. 66

D maj7

D major

Bb maj7

Bb lydian

G maj7

G major

C maj7

C lydian

Ex. 67

COMBINATIONS (CHAPTER 1 & 2)

13 G major G dorian

Ex. 68

17 A major E dorian

21 D major G dorian

Ex. 69

25 E major F dorian

29 F major F dorian

Ex. 70 A maj 7 "THE BUMBLE TREE" (Based on Ex. 68) E min 7

Handwritten musical notation for the first measure of "The Bumble Tree". The notation is on a single staff with a treble clef, a key signature of one sharp (F#), and a common time signature. The measure consists of two eighth-note pairs. The first pair is labeled "E triad" with a bracket underneath, and the second pair is labeled with a bracket above. Below the staff, the corresponding fingerings are written: 7 4, 5 4 for the first pair, and 4 4 5, 4 5 for the second pair. The bass line is indicated by a bass clef and the number 2.

Handwritten musical notation for the second measure of "The Bumble Tree". The notation is on a single staff with a treble clef, a key signature of one sharp (F#), and a common time signature. The measure consists of two eighth-note pairs. The first pair is labeled "G maj 7 arp" with a bracket underneath, and the second pair is labeled "A triad" with a bracket above. Below the staff, the corresponding fingerings are written: 4 5, 4 7 for the first pair, and 8 6 7 5 for the second pair. The bass line is indicated by a bass clef and the number 5.

Handwritten musical notation for the third measure of "The Bumble Tree". The notation is on a single staff with a treble clef, a key signature of one sharp (F#), and a common time signature. The measure consists of two eighth-note pairs. The first pair is labeled "G min 7" with a bracket above, and the second pair is labeled "F triad" with a bracket underneath. Below the staff, the corresponding fingerings are written: 5 6 5 5 6 for the first pair, and 5 6 6 5 8 for the second pair. The bass line is indicated by a bass clef and the number 10.

CHAPTER III: UNALTERED DOMINANT 7 CHORDS

Basically there are two types of unaltered dominant chords (unaltered meaning they contain a nat9, not a b9 or a #9, and a nat5 or a b5 but not a #5):

3a Dominant sus4 or dominant 11 chords, as a V in major, contain a 4 or 11 instead of 3.

The chord: 1 4 5 b7 (9 11 13)

Examples (C root):

C7sus4 C9sus4 C11 C13sus4 Bb/C Gmin7/C Bbmaj7/C

The scale to use with dominant sus4 chords is mode V of major = Mixolydian
= 1 2 3 4 5 6 b7
(9) (11) (13)

3b Lydian dominant chords: IV in melodic minor.

The chord: 1 3 5 b7 (9 #11 13)
(b5)

Examples: C7 C9 C13 C7(b5) C9(b5) Bbmaj7(#5)/C C9(#11)

The scale to use with Lydian dominant chords is the Lydian flat seven mode, which is mode IV of melodic minor = 1 2 3 #4 5 6 b7
(9) (#11) (13)

When the extensions aren't specified on a dominant chord (for example, when only C7 is indicated) and it doesn't function as a V moving to I (for example, the next chord after the C7 is not F or Fmin), this is the best type of chord and scale to use.

Compare these two approaches and you can see that the only difference between the scales is nat4 in Mixolydian vs. #4 in Lydian flat seven. 4 = 11, #4 = #11.

So, the nat4/nat11 relates to the Mixolydian dominant and the #4/#11, relates to the Lydian b7 dominant. Some chords could be treated as either scale. For instance, C7, C9 and C13, do not specify the character of the 4th or 11th.

Now, let's look at the possibilities within Mixolydian and Lydianb7 separately.

CHORD TYPE: Dominant 7 Sus 4
APPROACH: Mixolydian Scale

Use MIXOLYDIAN Mode = 1 2 3 4 5 6 b7 (9) (11) (13) = mode V of major.

EXAMPLE: C7sus4 as V in major.

F major = F G A Bb C D E F G A Bb etc.

Mode V of Fmaj = C Mixolydian = C D E F G A Bb

Ex. 71

C Mixolydian scale over C7 sus 4 chord

Handwritten musical notation for Ex. 71. The notation is on a staff with a treble clef, showing a sequence of eighth and sixteenth notes. Below the staff, a numbered scale diagram is provided for the C Mixolydian mode.

Numbered scale diagram for C Mixolydian:

4	b7			1	4
	3	6			
5	1	4	b7	2	5
6	2	5	1	3	6
b7			4	b7	
7	3	6	2		
1	4	b7		5	1
	3				
2	5	1	4	6	2
			b7		
12	3	6	2	5	3
4	D7		1	4	
	3	6			
15	5	1	4	D7	2
17	6	2	5	1	3
	b7			4	D7

Ex. 72 C Mixolydian

Handwritten guitar neck diagram for Ex. 72. The diagram shows a C Mixolydian scale across the six strings of a guitar neck. The diagram includes fingerings and circled '1' and '4' above the strings.

CHORD TYPE: Dominant 7 Sus 4

APPROACH: Mixolydian Pentatonics/Blues

For C7sus4: use C Mixolydian = mode V major (F)

HARMONIZED F Major scale = Fmaj7 Gmin7 Amin7 Bbmaj7 C7 Dmin7 Emin7b5.

Remember that minor pentatonics/blues can be built on the II, III, and IV degrees of the major scale. So for F major, Gmin, Amin and Dmin pentatonics/blues can be played over C7sus4 (or any other Mixolydian chord listed at the beginning of the chapter).

FORMULA: minor pentatonics/blues [up] 5th, [up] 6th or [up] whole step.

Let's Listen.

Ex. 73 Gmin pentatonic over C7sus4



Ex. 74 Amin pentatonic over C7sus4



Ex. 75 Dmin pentatonic over C7sus4



CHORD TYPE: Dominant 7 Sus4

APPROACH: Mixolydian Arpeggios

CII = 1 5 b7 9 11

(in a dominant 11 chord, the 3 is omitted because it clashes with the 11).

~~✓~~ 5 b7 9 11 = ~~C~~ G Bb D F = Gmin7

~~✓~~ ~~B~~ b7 9 11 13 = Bb D F A = Bbmaj7

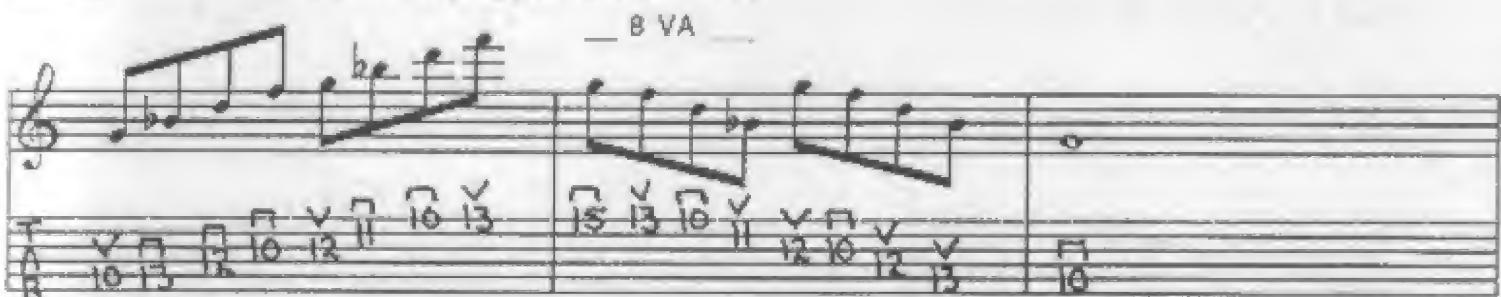
These two arps sound good over dominant sus4 chords because they are the most closely related.

FORMULA: min7 arp [up] 5th, maj7 arp [down] whole step.

ALL OTHER DIATONIC ARPS IN F MAJ (C MIXOLYDIAN) SOUND GOOD OVER C DOMINANT SUS CHORDS.

Ex. 76

Gmin7 arpeggio over C7 sus4



B V A

Ex. 77

Bb maj7 arpeggio over C7 sus4



Bb

Ex. 78

Diatonic arpeggio's from Fmaj over C7 sus4



F maj7 G min7 A min7 Bb maj7



C7 D min7 E min7 b5 F maj7

CHORD TYPE: Dominant 7 Sus 4

APPROACH: Mixolydian Triads

C Mixolydian is mode V of F major. The three major triads (I, IV, and V) of F are F, Bb and C.

Let's listen to these over C7sus4.

Ex. 79

F triad



F triad

8 12 10 10 10 13 13 10 10 10 12 8

Ex. 80

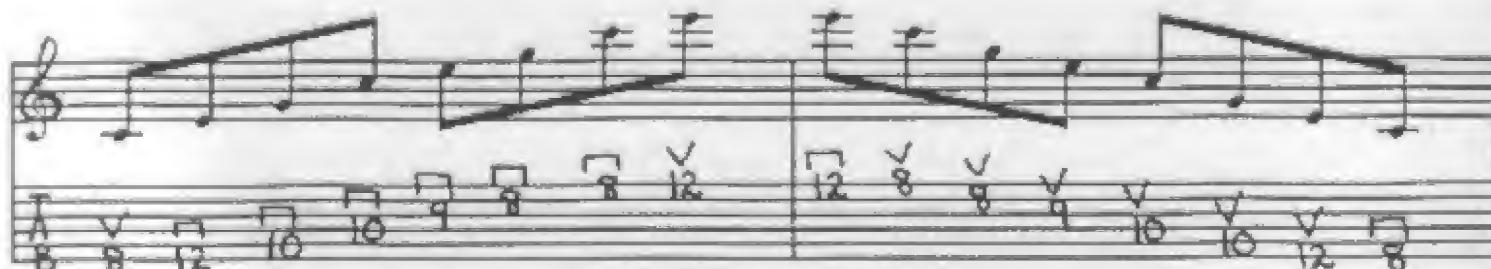
Bb triad over C7 sus4



8 8 7 7 10 10 10 10 10 10 10 8

Ex. 81

C triad over C7 sus4



C triad

8 8 12 10 10 10 12 12 8 8 10 10 12 8

They all sound good. All other diatonic triads in F major work well too.

FORMULAS: Major triads [up] 4th, [down] whole step and from the root.

CHORD TYPE: Dominant 7 Sus 4

APPROACH: Mixolydian Intervals

3rds 4ths 5ths 6ths all work nicely.

Let's listen.

Ex. 82

Diatonic 3rds in C Mixolydian (Fmaj) over C7 sus4



Ex. 83

Diatonic 4ths in C Mixolydian (F maj) over C7 sus4



Ex. 83 cont

Handwritten musical example 83 continued. The staff shows a melodic line with various slurs and grace notes. Fingerings are written below the staff: 12, 12, 9, 10, 10, 11, 12, 13, 10, 11, 12, 13, 13.

Ex. 84

Diatonic 5ths in C Mixolydian (Fmaj) over C7 sus4

Handwritten musical example 84. The staff shows a melodic line with slurs and grace notes. Fingerings are written below the staff: 8, 10, 10, 12, 7, 8, 8, 10, 10, 12, 7, 9, 8, 10, 10, 12.

Handwritten musical example 84 continued. The staff shows a melodic line with slurs and grace notes. Fingerings are written below the staff: 7, 10, 9, 11, 10, 13, 8, 10, 10, 12.

Ex. 85

Diatonic 6ths in C Mixolydian over C7 sus4

Handwritten musical example 85. The staff shows a melodic line with slurs and grace notes. Fingerings are written below the staff: 8, 10, 9, 12, 9, 10, 7, 9, 10, 9, 12, 9, 10, 12, 11, 9, 10, 12, 12, 12.

SUMMARY:

FORMULAS FOR SOLOING OVER DOMINANT 7 SUS 4 CHORDS. (MIXOLYDIAN SCALE)

1. Scale = Mixolydian
2. Pent/blues minor [up] whole step, [up] 5th, [up] 6th.
3. Arpeggios = min7 [up] 5th, maj7 [down] whole step (all diatonic arps to related major scale)
4. Triads = [up] 4th, [down] whole step, root.
5. Intervals = 3rds, 4ths, 5ths, 6ths.

MY FAVORITES:

1. Mixolydian
2. Minor pent/blues [up] whole step
3. Maj7 arp [up] 4th.
4. Major triad [up] 4th.
5. 6ths.

Using these formulas over E7sus4 =

1. E Mixolydian = 1 2 3 4 5 6 b7 = mode V of A major (E F# G# A B C# D).
2. Minor pent/blues [up] whole step = F#.
3. Maj7 arp [up] 4th = Amaj7.
4. Major triad [up] 4th = A.
5. 6ths diatonic to A major.

CHORD TYPE: Lydian Dominant

APPROACH: Lydian b7 Scale

Now let's look at Lydian dominants.

1 3 5 b7 9 #11 13 (#11 = b5 = #4).

Our example will be C9. The scale to use on Lydian dominants is Lydian b7, 1 2 3 #4 5 6 b7. This scale is Mode IV of Melodic minor scale.

eg. C9 = chord IV of G melodic minor.

G melodic minor = 1 2 b3 4 5 6 7 (9) (11) (13) = G A Bb C D E F#.

Mode IV = C D E F# G A Bb = C Lydian b7 (Lydian means raised 4[#4]; Lydian b7 = major scale with #4 and b7).

Ex. 86

C Lydian b7 over C9

Ex. 87 C Lydian b7

CHORD TYPE: Lydian Dominant

APPROACH: Lydian b7 Pent/blues

HARMONIZED MELODIC MINOR SCALE

Gmin (Maj7) Amin7 Bbmaj7#5 C7 D7 Emin7b5
F#min7b5

There is one minor pent/blues in melodic minor, at the 2nd degree.

C9 = C Lydian b7 = G melodic minor. 2nd degree of G melodic minor = A. Therefore, A minor pent/blues is possible.

FORMULA = min pent/blues [down] min 3rd from chord.

Let's Listen

Ex. 88 Amin Pent over C9

CHORD TYPE: Lydian Dominant
APPROACH: Lydian b7 Arpeggios

C7 = 1 3 5 b7. Let's extend. 1 3 5 b7 9 = C E G Bb D = Emin7b5
5 b7 9 #11 = G Bb D F# = Gmin(maj7).
b7 9 #11 13 = Bb D F# A = Bbmaj7#5

FORMULAS: min7b5 arp [up] 3rd, min (maj7) arp [up] 5th, maj7#5 arp [down] whole step.
ALL DIATONIC ARPS OF G MELODIC MINOR SOUND GOOD OVER C LYDIAN
DOMINANTS. Let's listen.

Ex. 89 Emin7b5 arpeggio over C9

Ex. 90 Gmin(maj7) arpeggio over C9

Ex. 91 Bbmaj7#5 arpeggio over C9

*Note: Key signature for 9 melodic minor has all B's flat, all F's sharp.

Ex. 92

Diatonic arps in C Lydian b7 (Gmel min) over C9

CHORD TYPE: Lydian Dominant

APPROACH: Lydian b7 Triads

First we'll look at major triads. There are two major triads in melodic minor. They are on the 4th and 5th degrees. Our example chord is C9 = C Lydian b7 = G melodic minor. 4th and 5th degrees of G melodic minor are C and D. Let's listen to C and D major triads over C9.

Ex. 93

Cmaj and Dmaj triads over C9

FORMULA: MAJOR TRIADS from ROOT and [up] whole step.
All diatonic triads in G melodic minor sound good over C Lydian dominant chords.

Ex. 94

Diatonic triads from G Lydian b7 over C9

A musical staff in G major (one sharp) and common time. The staff shows a sequence of chords: G major (root position), B major (root position), D major (root position), and E major (root position). The bass line consists of eighth-note patterns: 15, B, 15, B, 12, B, 10, B, 11, 9, 8, 7, 6, 7, 5, 5, 3, 3. The chords are indicated by Roman numerals above the staff: I, II, III, IV.

Ex. 95

C Lydian b7 in triads over C9

A musical staff in G major (one sharp) and common time. The staff shows a sequence of chords: G minor (root position), A minor (root position), B augmented (root position), C major (root position), D major (root position), and E major (root position). The bass line consists of eighth-note patterns: 3, 6, 5, 2, 3, 5, 6, 5, 4, 3, 3, 2, 3. The chords are indicated by Roman numerals above the staff: I, II, III, IV, V, VI.

A musical staff in G major (one sharp) and common time. The staff shows a sequence of chords: F# major (root position), G minor (root position), A minor (root position), B augmented (root position), C major (root position), and D major (root position). The bass line consists of eighth-note patterns: 5, 2, 4, 2, 5, 3, 3, 5, 2, 5, 5, 2, 3, 3, 5, 2, 3. The chords are indicated by Roman numerals above the staff: I, II, III, IV, V, VI.

CHORD TYPE: Lydian Dominant

APPROACH: Lydian b7 Intervals

3rds and 6ths are useful in melodic minor (the 4th and 5th intervals are almost all augmented 4ths and diminished 5ths). So, for our purposes we'll just use 3rds and 6ths in melodic minor).

Ex. 96

Diatonic 3rds in C Lydian b7 over C9

Ex. 97

Diatonic 6ths in C Lydian b7 over C9

SUMMARY:

FORMULAS FOR SOLOING OVER LYDIAN DOMINANTS (LYDIAN b7 SCALE)

1. Scale: Lydian b7.
2. Pent/blues: [down] min 3rd
3. Arpeggios: Min7b5 [up] 3rd, Min(maj 7) [up] 5th, Maj7#5 [down] whole step. (All diatonic arps of related melodic minor scale).
4. Triads: from root and [up] whole step
5. Intervals: 3rds and 6ths

MY FAVORITES:

1. Lydian b7 scale
2. Minor pent/blues [down] min3rd
3. Maj7#5 arp [down] whole step
4. Major triad [up] whole step
5. 3rds.

Ex. 98

Chord Progressions

Ex. 99

Bb/C Db/Eb F/G

C mixolydian Eb mixolydian G mixolydian

Ex. 100

C 9 7 Eb 13 7

C lydian b7 Eb lydian b7

A 13 7 F 13 7

A lydian b7 F lydian b7

Ex. 101

C 9 F 9 C 9 7

C lydian b7 F lydian b7 C lydian b7

F 9 7 C 9 7

F lydian b7 C lydian b7

Ex. 102

7/E 7 C 9 7

E mixolydian F mixolydian Eb lydian b7

7/E 7 Eb 9/9/5 7

Eb mixolydian Bb mixolydian

Ex. 103.

COMBINATION PROGRESSIONS

Ex. 103 illustrates a combination progression. The progression is: C major (I), followed by a dominant 7th chord (V7), then F mixolydian (IV). The progression is marked with a vertical line and a checkmark (✓) under the first two measures, and a vertical line and a checkmark (✓) under the last measure.

C major

F mixolydian

Ex. 104

Ex. 104 illustrates a combination progression. The progression is: A dorian (I), followed by a dominant 7th chord (V7), then C mixolydian (IV). The progression is marked with a vertical line and a checkmark (✓) under the first two measures, and a vertical line and a checkmark (✓) under the last measure.

A dorian

C mixolydian

Ex. 105

Ex. 105 illustrates three combination progressions. The first progression is from E dorian (I) to C mixolydian b7 (IV). The second progression is from E dorian (I) to G mixolydian (IV). The third progression is from E dorian (I) to B major/B lydian (V). Each progression is marked with a vertical line and a checkmark (✓) under the first two measures, and a vertical line and a checkmark (✓) under the last measure.

E dorian

C mixolydian b7

E dorian

G mixolydian

E dorian

B major/B lydian

Ex. 106

"Playing My Dx - 9 Trillion" (based on Ex. 98)

Bbmaj7/C

Bbmaj7#5/C

Sheet music for Ex. 106, "Playing My Dx - 9 Trillion" (based on Ex. 98). The music is divided into three staves:

- Top Staff:** Key signature Bbmaj7/C. Chords: F triad, C mixolydian, D triad. Fingerings: 5 6 5, 5 8 5 7, 7 11 7 10 7.
- Middle Staff:** Key signature Bbmaj7/C. Chords: F triad, C triad, D minor triad, Bb triad. Fingerings: 8 10 10, 8 9 10, 7 6 5, 6 7 6.
- Bottom Staff:** Key signature Bbmaj7#5/C. Chords: D triad, D major 7#5 arpeggio. Fingerings: 7 10 10, 10 12 14, 10 10 10 12.

Ex. 107

"Fried Zucchini" (based on Ex. 104)

Amin7

Bb/C

Sheet music for Ex. 107, "Fried Zucchini" (based on Ex. 104). The music is divided into two staves:

- Top Staff:** Key signature Amin7. Chords: A dorian 3rds. Fingerings: 10 12 12 13 10 12 10 12.
- Bottom Staff:** Key signature Bb/C. Chords: C mixolydian 3rds. Fingerings: 10 10 11 10 10 11 10 12.

Fmaj7

Bb13

Sheet music for Ex. 107, "Fried Zucchini" (based on Ex. 104). The music is divided into two staves:

- Top Staff:** Key signature Fmaj7. Chords: 3rds in F major, 4ths & 3rds in F. Fingerings: 8 9 10 10 8 10 12 12 12 10 10 12.
- Bottom Staff:** Key signature Bb13. Chords: 3rd in Bb lydian b7. Fingerings: 8 9 10 10 8 10 10 10 10 6 8 2 2.

CHAPTER 4: ALTERED DOMINANT CHORDS

There are three main scale approaches for altered dominants: Super Locrian (7th mode of Melodic Minor), Diminished (half whole from root), and Phrygian Major (5th mode of Harmonic Minor).

Melodic minor will be the final topic for this book. The Frank Gambale Technique Book II will continue where this book leaves off.

CHORD TYPE: Altered Dominant

APPROACH: Super Locrian (Melodic Minor) Scale

The most common scale used over altered dominant chords is the SUPER LOCRIAN. This scale begins on the 7th degree of the melodic minor scale. An altered dominant means a 7th chord with an altered (# or b), 9 or 5 or any combination.

The chord we will use for our purposes is E7#9. The scale will be E Super Locrian which = 7th mode of F Melodic minor. F Melodic minor = F G Ab Bb C D E. E Super Locrian = E F G Ab Bb C D = 1 b2 b3 3 b5 #5 b7 (b9) (#9) (#11) (b13).

FORMULA: On altered dominant chords play Super Locrian from the root or play melodic minor [up] 1/2 step from the root of the chord.

Ex. 108

E Super Locrian (F melodic minor) over E7#9



Ex. 109 E Super Locrian

1 b2 b3 b5 #5 b7
(bg #9 #11 b13)

b2	b5	b3	#5	b2
	(1)			
b3	#5	b2	b5	b7 b3
	3			3
b7	b3	#5	(1)	
b5	3		b2	5
(1)		b7		
#5	b2	b5	b3	#5
(1)		b3		
b7	b3	#5	b2	b7
	3			b5
(1)	b7	b3		(1)
b2	b5	3	#5	b2
(1)				
b3	#5	b2	b5	b7 b3
	3			3
b7	b3	#5	(1)	
b5	3		b2	b5

CHORD TYPE: Altered Dominant

APPROACH: Super Locrian Pentatonics/Blues

There is one minor pentatonic in melodic minor starting on the 2nd degree. E7#9 = E Super Locrian = F Melodic Minor. 2nd degree of F Melodic Minor is G.

FORMULA: Minor pentatonic [up] min 3rd from altered dominant.

Let's listen to G minor pentatonic over E7#9 (Ex. 110).

CHORD TYPE: Altered Dominant

APPROACH: Super Locrian Arpeggios

HARMONIZED F MELODIC MINOR. Fmin(maj7) Gmin7 Abmaj7#5 Bb7 C7 Dmin7b5 Emin7b5. All these arpeggios sound great over E7 alt.

Let's look a little closer to see which are the most closely related. $D_{min}7b5 = 1\ b3\ b5\ b7 = D\ F\ Ab\ C$. If we play this arp over E, and rearrange the notes of $D_{min}7b5$ ($D = b7$ of E, $F = b9$ of E, $Ab = 3rd$ of E, $C = \#5$ of E), we get $E\ Ab(G\#)\ C\ D\ F = 1\ 3\ \#5\ b7\ b9 = E7\#\#b9 = (D_{min}7b5/E bass)$.

Ex. 110

Gmin pentatonic over E7#9

Ex. 111 Dmin7 b5 arpeggio over E7#9



The Dmin7b5 is the most closely related chord to E7alt. Let's list all the diatonic arps of F melodic minor and see how they each affect E7#9.

Fmin(maj7) = F Ab C E = b9 3 #5 R of E
Gmin7 = G Bb D F = #9 b5 b7 b9 of E
Abmaj7#5 = Ab C E G = 3 #5 R #9 of E
Bb7 = Bb D F Ab = b5 b7 b9 3 of E
C7 = C E G Bb = #5 R #9 b5 of E
Dmin7b5 = D F Ab C = b7 b9 3 #5 of E
Emin7b5 = E G Bb D = R #9 b5 b7 of E

All these arpeggios affect the altered chord differently and they are all useful sounds. Let's listen to all of these.

Ex. 112 Fmin (maj7) Arpeggio over E7 #9



Ex. 113

Gmin7 arpeggio over E7#9

8 Va Loco

10 13 12 10 15 10 11 12 10 12 13 10 16

Ex. 114

Abmaj7#5 arpeggio over E7#9

Loco

10 11 10 9 12 B 13 12, 15 15 12 13 13 12 9 10, 11 10 9

Ex. 115

Bb7 arpeggio over E7#9

6 10 8 6 8 7 6 9, 11 6 7 8 4 3 10 6, 11 6

Ex. 116

C7 arpeggio over E7#9

8 7 5 8 10 9 8 6, 8 9 6 8 9 10 8 5, 11 8 8

Ex. 117

Emin7b5 arpeggio over E7#9

Musical notation for Example 117. The top staff shows a treble clef and a bass clef. The bottom staff shows a bass clef. The notation consists of two measures. The first measure shows a treble clef staff with a sixteenth-note arpeggio: B, G, D, B. The second measure shows a bass clef staff with a sixteenth-note arpeggio: E, B, G, D. Below the staffs are fingerings: 7 10 2 3 4 6 10 in the first measure, and 12 12 10 10 5 7 9 in the second measure. The bass staff has fingerings 10 10 10 10 10 10 10 in the first measure and 10 10 10 10 10 10 10 in the second measure.

CHORD TYPE: Altered Dominant

APPROACH: Super Locrian Triads

In a melodic minor scale there are two major triads. They appear on the 4th and 5th degrees.

E7#9 = F melodic minor. 4th and 5th degrees of F are Bb and C.

FORMULA: Major triads [up] b5 and [up] #5 from the root of the altered chord.

Let's listen to Bb and C major triads over E7#9.

Ex. 118

Bb triads over E7#9 chord

Musical notation for Example 118. The top staff shows a treble clef and a bass clef. The bottom staff shows a bass clef. The notation consists of two measures. The first measure shows a treble clef staff with a sixteenth-note arpeggio: B, G, D, B. The second measure shows a bass clef staff with a sixteenth-note arpeggio: E, B, G, D. Below the staffs are fingerings: 6 6 10 8 8 7 6 10 10 6 6 7 7 8 10 6 6 in the first measure, and 6 6 10 6 6 7 7 8 10 6 6 6 6 in the second measure.

Ex. 119

Cmaj triads over E7#9 chord

Musical notation for Example 119. The top staff shows a treble clef and a bass clef. The bottom staff shows a bass clef. The notation consists of two measures. The first measure shows a treble clef staff with a sixteenth-note arpeggio: C, G, D, C. The second measure shows a bass clef staff with a sixteenth-note arpeggio: E, B, G, D. Below the staffs are fingerings: 8 12 10 16 14 8 12 12 8 12 8 10 10 12 6 8 in the first measure, and 8 12 10 16 14 8 12 12 8 12 8 10 10 12 6 8 in the second measure.

Ex. 120

Diatonic Triads from E Super Locrian over E7#9 chord

Musical notation for Ex. 120. The top staff shows a series of eighth-note chords: Eo (E7#9), F min, G min, Ab aug, Bb, C, Do, and Eo. The bottom staff shows the corresponding notes on a bass staff with fingerings (3, 3, 3, 3, 3, 3, 3) and a bass clef. The bass notes are: 7, 5, 8, 10, 6, 8, 10, 3, 7, 9, 10, 11, 8, 7, 10, 12, 9, 10, 12, 10, 9, 11, 12, 4, 11, 9.

CHORD TYPE: Altered Dominant

APPROACH: Super Locrian Intervals

3rds and 6ths. Let's listen.

Ex. 121

Diatonic 3rds from E Super Locrian over E7#9 chord.

Musical notation for Ex. 121. The top staff shows a series of eighth-note chords: Eo, F min, G min, Ab aug, Bb, C, Do, and Eo. The bottom staff shows the corresponding notes on a bass staff with fingerings (3, 3, 3, 3, 3, 3, 3) and a bass clef. The bass notes are: 7, 5, 6, 8, 6, 3, 5, 6, 3, 7, 5, 5, 7, 6, 3, 7.

Ex. 122

Diatonic 6ths from E Super Locrian over E7#9

Musical notation for Ex. 122. The top staff shows a series of eighth-note chords: Eo, F min, G min, Ab aug, Bb, C, Do, and Eo. The bottom staff shows the corresponding notes on a bass staff with fingerings (3, 3, 3, 3, 3, 3, 3) and a bass clef. The bass notes are: 7, 5, 7, 5, 5, 6, 9, 8, 5, 4, 7, 6, 9, 8, 9.

SUMMARY: OF ALTERED DOMINANT

1. Scale: Super Locrian
2. Pent/ blues: [up] min 3rd
3. Arpeggios: Min7b5 [down] whole step (all diatonic arps)
4. Maj triads:[up] b5 and [up] #5
5. Intervals: 3rds and 6ths

MY FAVORITES:

1. Super Locrian scale
2. Min pent/blues [up] min 3rd
3. Maj 7#5 arpeggio [up] 3rd
4. Maj triad [up] #5
5. 3rds

Ex. 123

Progressions

A minor	%	E7#9	%
A dorian		E super locrian	

Ex. 124

A minor	X.	99	X.
A dorian		D lydian b7	

F major	7	7	E major	9	7	7	7
F lydian			E super locrian				

Sheet music for "Northbourne Ave." (Based on Ex. 124) in 12 measures. The music is for a 6-string guitar and includes fingering, string numbers, and harmonic analysis.

Measure 1: Amin7. Fingerings: 3, 3. Chords: A blues (12 11 10 9 10 8). Harmonic analysis: 3rd from E triad.

Measure 2: Fmaj7. Fingerings: 3, 3. Chords: G triad (9 12 16 10). Harmonic analysis: G triad | Bb triad | C7 arp | 15 12 13 11.

Measure 3: Amin7. Fingerings: 3, 3. Chords: A blues (12 11 10 9 10 8). Harmonic analysis: 6th from D triad | from D lyd b7 | 10 10 12 11 10 12.

Measure 4: Fmaj7. Fingerings: 3, 3. Chords: A blues scale (10 9 8 11 10 9 10 9 8 12 14 13 11 12 15).

Measure 5: E7#9. Fingerings: 3, 3. Chords: Based on F melodic min scale (15 14 13 11 12 13 13 11 12 14 15 12).

EDITOR'S NOTE: On the accompanying cassette, Frank indicates that the Tech Book II will include sections on slash chords and modes. Though Frank had originally intended to include these topics, he later decided to save them for future projects. The Tech Book II is now on sale and details the second half of Frank's soloing theory course.

APPENDIX

Terminology used in this book.

INTERVALS

I refer to intervals by numbers in this manner:

1 = the root of a scale or chord

b2 = minor 2nd interval (half step)

2 = major 2nd (whole step)

b3 = minor third

3 = major third

4 = perfect fourth

#4 = augmented fourth

b5 = diminished fifth

5 = perfect 5th

b6 = minor 6th

6 = major 6th

b7 = minor 7th

7 = major 7th

b9 = minor ninth (same note as b2, up an octave)

9 = major ninth (same note as 2, up an octave)

#9 = augmented ninth (same note as b3, up an octave)

11 = perfect eleventh (same note as 4, up an octave)

#11 = augmented eleventh (same note as #4, up an octave)

b13 = minor thirteenth (same note as b6, up an octave)

13 = major thirteenth (same note as 6, up an octave)

It is very important to be aware of enharmonic equivalents (different spellings of the same note). For example, G# = Ab, D# = Eb, etc. Also in intervals: #4 = b5, #5 = b6, etc. And also in octave equivalents: 2 = 9 (e.g. the 2 of a C scale is D. The 9 of a C9 chord is D.) b2 = b9, b3 = #2 = #9, 4 = 11, b5 = #4 = #11, 6 = 13, #5 = b6 = b13.

OTHER NOTATION

I use the notation [up] and [down] for "up a" and "down a", respectively. So, "mel min [up] 1/2" means play the melodic minor scale up a half step (from the chord being discussed).

THE MAJOR SCALE

All major scales are made up of these intervals from the root. (W means whole step, 1/2 means half step):

from root 1 \swarrow W 2 \swarrow W 3 \swarrow 1/2 4 \swarrow W 5 \swarrow W 6 \swarrow W 7 \swarrow 1/2

So in the key of C major = 1 2 3 4 5 6 7 1
 C √ D √ E √ F √ G √ A √ B √ C
 W W 1/2 W W W W 1/2

You'll notice that the major scales other than C require the use of sharps or flats to maintain the right interval relationships. For example, the A major scale:

1 2 3 4 5 6 7 1
 A √ B √ C# √ D √ E √ F# √ G# √ A
 W W 1/2 W W W W 1/2

THE HARMONIZED MAJOR SCALE

There are many chords that can be constructed from the major scale. Let me show you how we arrive at them.

The notes of the C major scale are:

1	2	3	4	5	6	7	1	2	3	4	5	6
C	D	E	F	G	A	B	C	D	E	F	G	A
							8	9	10	11	12	13

Chords are made up basically in ascending diatonic 3rds, every other note of the scale. (DIATONIC means using only the notes of the given scale. So when referring to diatonic 3rds, some will turn out to be major 3rds and others will be minor 3rds.)

If you start on the 1st degree (root) of the scale, C, and build a 4-part chord by selecting every other note . . .



you have C E G B, = Cmaj7 = the I (one) chord in C.

If you begin on the 2nd degree, D, and build a 4-part chord by selecting every other note . . .



You get D F A C = Dmin7 = the II Chord in C. E G B D = Emin7 = III in C, and so on. The list of four-part chords arrived at in this manner is the Harmonized C Major Scale.

Harmonized C major scale:

Cmaj7	Dmin7	Emin7	Fmaj7	G7	Amin7	Bmin7(b5)
I	II	III	IV	V	VI	VII

Harmonized A major scale:

Amaj7	Bmin7	C#min7	Dmaj7	E7	F#min7	G#min7(b5)
I	II	III	IV	V	VI	VII

Notice that since all major scales are constructed of the same intervals, 1 2 3 4 5 6 7 from root, the chord types on each degree remain the same in all major keys.

TRIADS: in all major keys,

the I, IV and V triads are major (1 3 5 from root of triad)

the II, III and VI triads are minor (1 b3 5)

the VII triad is diminished (1 b3 b5)

FOUR-PART CHORDS: In all major keys,

the I and IV chords are maj7 (1 3 5 7)

the II, III and VI chords are min7 (1 b3 5 b7)

the V chord is dominant (1 3 5 b7)

the VII chord is min7(b5) (1 b3 b5 b7)

Although I generally write down just the 4-part chords when listing the harmonized scale, it is very important to keep in mind what the diatonic extensions (continuing up in diatonic 3rds to the 9 or b9 or #9, 11 or #11, 13 or b13) would be.

For example, the IV chord in C would be:

C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D
1	2	3	#4	5	6	7			9		#11			13	
1 3 5 from F = F triad															
1 3 5 7 from F = Fmaj7															
1 3 5 7 9 from F = Fmaj9															
1 3 5 7 9 #11 from F = Fmaj9(#11)															
1 3 5 7 9 #11 13 from F = Fmaj13(#11)															

Notice that 9 of F = the same note as 2 of F, #11 = #4, 13 = 6. The diatonic extensions available on each scale degree also remain the same in every major key.

In all major keys:

- I maj7 (9 11 13)
- II min7 (9 11 13)
- III min7 (b9 11 b13)
- IV maj7 (9 #11 13)
- V 7 (9 11 13)
- VI min7 (9 11 b13)
- VII min7 (b5) (b9 11 b13)

MODES OF THE MAJOR SCALE

In all music theory, the major scale is always used as a reference to determine another scale's interval structure. Modes of major can be compared to major in two ways: as alterations of a major scale (taking a major scale and raising or lowering certain notes by 1/2 steps) or as inversions of a major scale (taking a major scale and playing a 7-note scale by starting on a degree other than 1 of the major scale). I want you to be aware of both ways. We'll use C as a root for our examples of modes.

DORIAN as an inversion: DORIAN IS MODE II OF MAJOR.

Example: In C Dorian, C is 2 of Bb, so

Bb Major



C Dorian



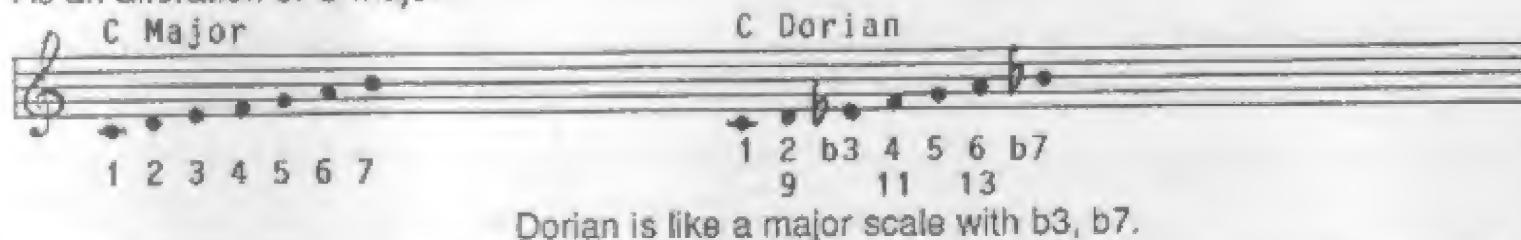
1 2 3 4 5 6 7 1

1 2 b3 4 5 6 b7

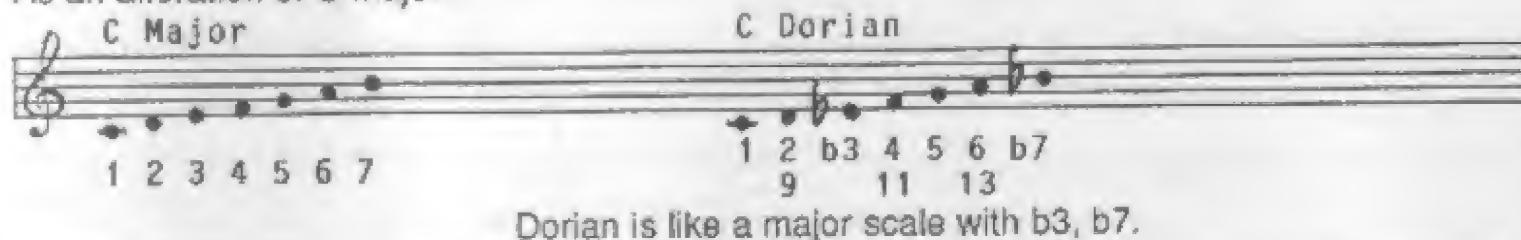
C Dorian is mode II of Bb major, (has the same notes as Bb major, starting on 2).

As an alteration of C major

C Major



C Dorian



1 2 3 4 5 6 7

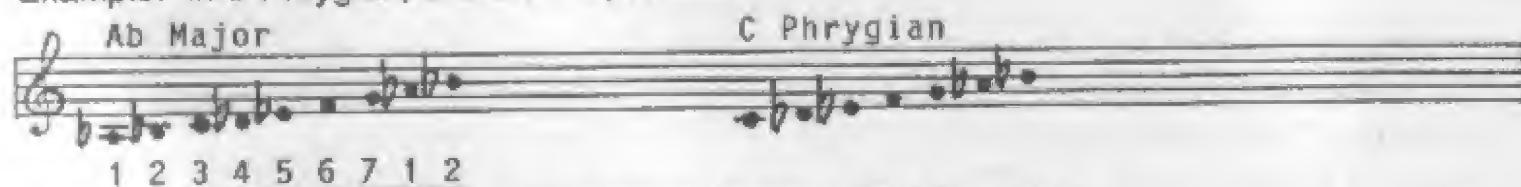
1 2 b3 4 5 6 b7
9 11 13

Dorian is like a major scale with b3, b7.

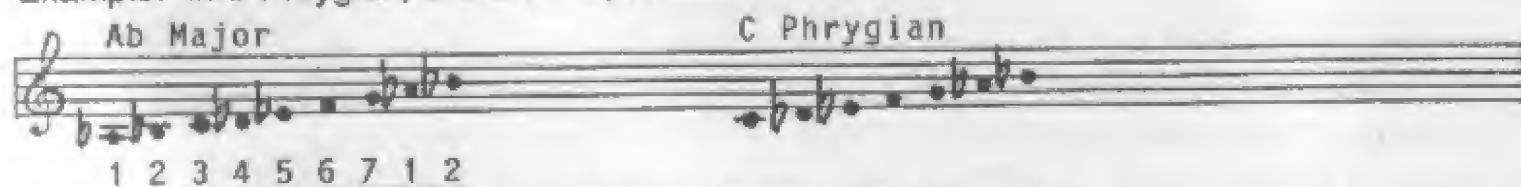
PHRYGIAN IS MODE III OF MAJOR.

Example: In C Phrygian, C is 3 or Ab, so

Ab Major



C Phrygian



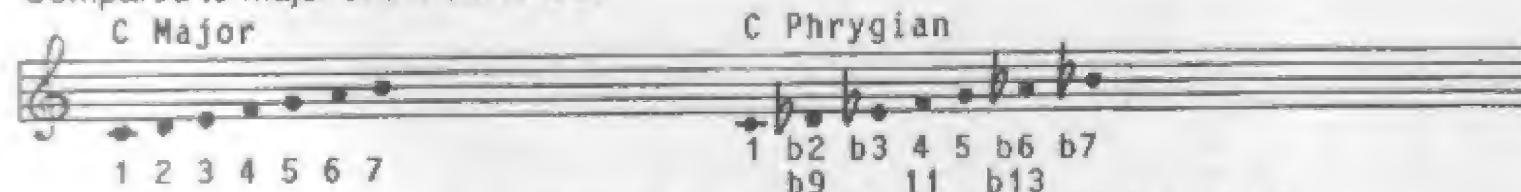
1 2 3 4 5 6 7 1 2

1 b2 b3 4 5 b6 b7

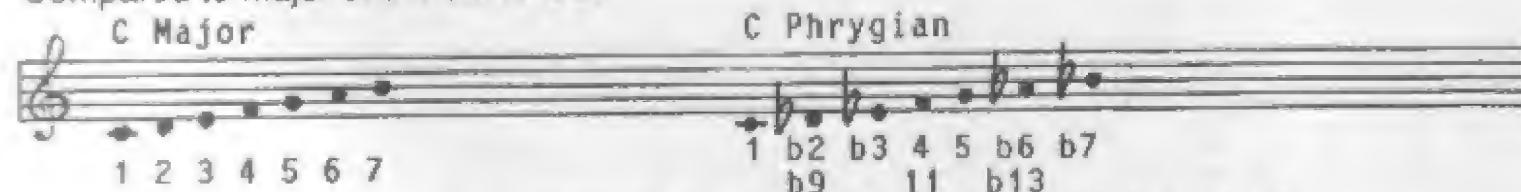
C Phrygian is mode III of Ab major.

Compared to major of the same root:

C Major



C Phrygian



1 2 3 4 5 6 7

1 b2 b3 4 5 b6 b7
9 11 13

Phrygian is like a major scale with b2, b3, b6, b7.

LOCRIAN IS MODE VII OF MAJOR

Example: C Locrian. C is 7 of Db, so

Db Major: 1 2 3 4 5 6 7
C Locrian: 1 2 3 4 5 6

C Locrian is mode VII of Db major.

Compared to major of the same root:

C Major: 1 2 3 4 5 6 7
C Locrian: 1 b2 b3 4 b5 b6 b7
b9 11 b13

Locrian is like a major scale with b2, b3, b5, b6, b7

SUMMARY OF THE MODES OF MAJOR

(mode I = major) = 1 2 3 4 5 6 7

mode II = Dorian = 1 2 b3 4 5 6 b7

mode III = Phrygian = 1 b2 b3 4 5 b6 b7

mode IV = Lydian = 1 2 3 #4 5 6 7

mode V = Mixolydian = 1 2 3 4 5 6 b7

mode VI = Aeolian = natural minor = 1 2 b3 4 5 b6 b7

mode VII = Locrian = 1 b2 b3 4 b5 b6 b7

MODES - MAJOR

C Major

1	2	3	4	5	6	7
(9)	(11)	(13)				
4				1	4	
	7	3	6			
3	5	1	4	2	5	
			7			
5	6	2	5	1	3	6
					4	
7	7	3	6	2	7	
	1	4		5	1	
9		7	3			
2	5	1	4	6	2	
12	3	6	2	5	7	3
4				1	4	
	7	3	6			
15	5	1	4	2	5	
			7			
17	6	2	5	1	3	6
					4	

C Dorian

1	2	b3	4	5	6	b7
(9)			(11)		(13)	
4	b7	b5		1	4	
	6					
3	5	1	4	b7	2	5
				b3		
5	6	2	5	1	6	
	b7	b3			4	b7
7			6	2		
	1	4	b7	b3	5	1
9						
2	5	1	4	6	2	
b3				b7	b3	
12	6	2	5			
4	b7	b5		1	4	
			6			
15	5	1	4	b7	2	5
				b3		
17	6	2	5	1	6	
	b7	b3			4	b7

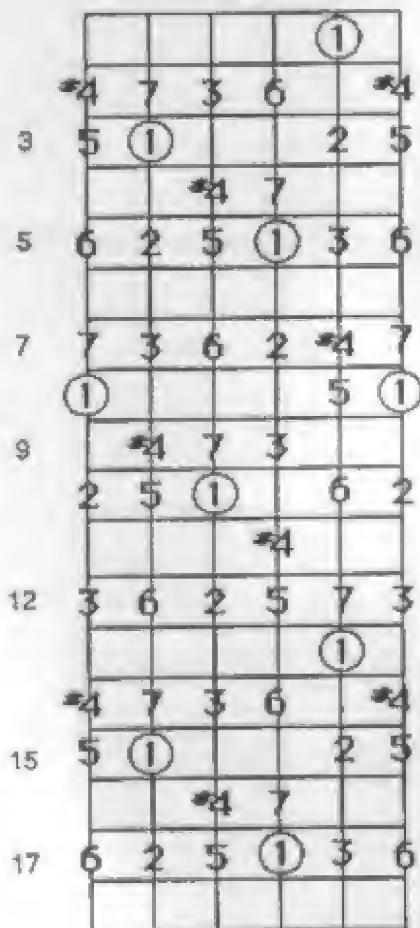
C Phrygian

1	b2	b3	4	5	b6	b7
(b9)			(11)		(b13)	
4	b7	b3	b6	1	4	
				b2		
3	5	1	4	b7	5	
b6	b2				b3	b6
5			5	1		
b7	b3	b6	b2	4	b7	
7						
1	4	b7	b3	5	1	
b2				b6	b2	
5	1	4				
b3	b6	b2		b7	b3	
12			5			
4	b7	b3	b6	1	4	
				b2		
15	5	1	4	b7	5	
b6	b2				b3	b6
17			5	1		
b7	b3	b6	b2	4	b7	

MODES MAJOR

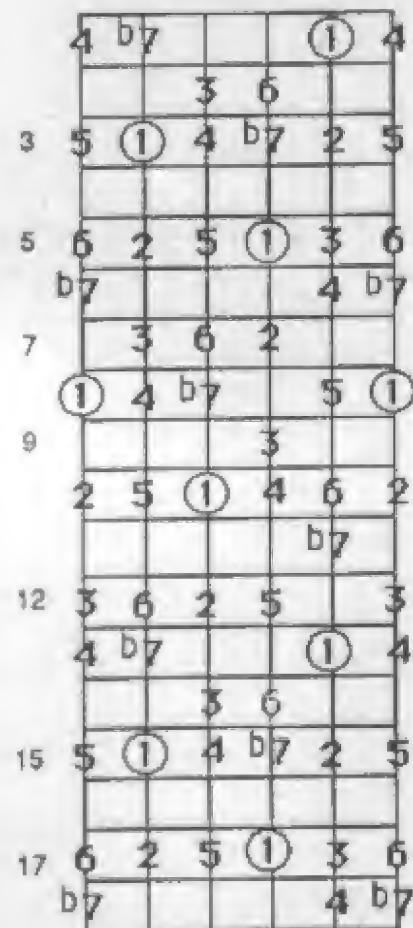
C Lydian

1	2	3	#4	5	6	7
(9)		(#11)		(13)		



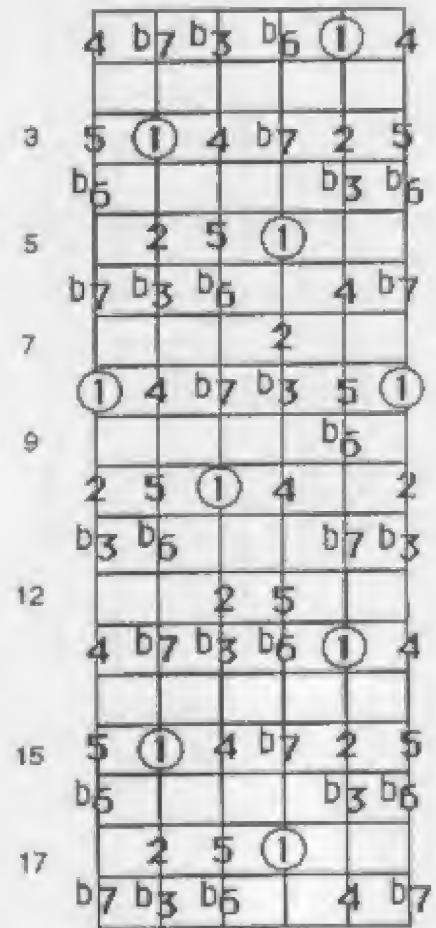
C Mixolydian

1	2	3	4	5	6	b7
(9)		(11)		(13)		



C Aeolian

1	2	b3	4	5	b6	b7
(9)		(11)		(b13)		



MODES MAJOR

C Locrian

1 b2 b3 4 b5 b6 b7
 (b9) (11) (b13)

4	b7	b3	b6	1	4
b5				b2	b5
3	1	4	b7		
b6	b2	b5		b3	b6
5			1		
b7	b3	b6	b2	4	b7
7				b5	
1	4	b7	b3	1	
b2	b5			b6	b2
9		1	4		
b3	b6	b2	b5	b7	b3
12					
4	b7	b3	b6	1	4
b5				b2	b5
15	1	4	b7		
b5	b2	b5		b3	b6
17			1		
b7	b3	b6	b2	4	b7

THE MELODIC MINOR SCALE

The melodic minor scale is made up of these intervals:

from root: 1 \vee 2 \vee b3 \vee 4 \vee 5 \vee 6 \vee 7 \vee 1
from each other: W $\frac{1}{2}$ W W W W $\frac{1}{2}$

The melodic minor scale is like a major scale with a b3.
For example, C melodic minor is C D Eb F G A B.

THE HARMONIZED MELODIC MINOR SCALE

In all melodic minor scales, the harmonized scale is:

I min(maj7) (9 11 13)
II min7 (b9 11 13)
III maj7 (#5) (9 #11 b13 [nat.]13)
IV 7 (9 #11 13)
V7 (9 11 b13)
VI min7(b5) (9 11 b13)
VIImin7(b5) (b9 #9 b11 = 3 #11 b13)

For example, in A melodic minor (A B C D E F# G#), the harmonized scale is Amin(maj7)
Bmin7 Cmaj7(#5) D7 E7 F#min7(b5) G#min7(b5)

MODES OF THE MELODIC MINOR SCALE

Just as we arrive at modes of the major scale by playing seven-note scales, we can start on different degrees and arrive at modes of the melodic minor by doing the same thing. The modes are given names which compare them to modes of the major scale. The interval structure is compared back to the major scale.

DORIAN FLAT TWO IS MODE II OF MELODIC MINOR.

Example: In C Dorian b2, C is 2 of Bb melodic minor, so . . .

Bb Melodic Minor C Dorian b2

1 2 b3 4 5 6 7 1

C Dorian b2 is mode II of Bb melodic minor.

Compared to major of same root:

C Major C Dorian b2

1 2 3 4 5 6 7

1 b2 b3 4 5 6 b7
b9 11 13

Dorian Flat Two is like a major scale with b2, b3, b7.

LYDIAN SHARP FIVE IS MODE III OF MELODIC MINOR

Example: In C Lydian #5, C is b3 of A melodic minor, so ...

G Lydian #5 is mode II of A melodic minor. Compared to major of the same root.

Compared to major of the same root

Lydian Sharp Five is like a major scale with #4, #5.

LYDIAN FLAT SEVEN IS MODE IV OF MELODIC MINOR.

Example: In C Lydian b7, C is 4 of G melodic minor, so . . .

C Lydian b7 is mode IV of G melodic minor.

Compared to major of the same root

Lydian Flat Seven is like a major scale with #4, b7.

MIXOLYDIAN FLAT SIX IS MODE V OF MELODIC MINOR

Example: In C Mixolydian, b6 (C) is E of E melodic minor, so

C Mixolydian, b6 is mode V of F melodic minor.

Compared to major of the same root

C Major	C Mixolydian b6
1 2 3 4 5 6 7	1 2 3 4 5 b6 b7 9 11 b13

Mixolydian Flat Six is like a major scale with b6, b7.

AEOLIAN FLAT FIVE IS MODE III OF MELODIC MINOR.
Example: In C Lydian b5, C is 6 of Eb melodic minor, so . . .

Two staves of musical notation. The left staff, labeled 'Eb Melodic Minor', shows a scale with notes: B, C, D, E, F, G, A. The right staff, labeled 'C Aeolian b5', shows a scale with notes: A, B, C, D, E, F, G. Below the staves are the note names: 1 2 b3 4 5 6 7 1 2 b3 4 5.

C Aeolian b5 is mode VI of Eb melodic minor.
Compared to major of the same root

Two staves of musical notation. The left staff, labeled 'C Major', shows a scale with notes: C, D, E, F, G, A, B. The right staff, labeled 'C Aeolian b5', shows a scale with notes: A, B, C, D, E, F, G. Below the staves are the note names: 1 2 3 4 5 6 7 9 11 b13.

Aeolian Flat Five is like a major scale with b3, b5, b6, b7.

SUPER LOCRIAN IS MODE VII OF MELODIC MINOR.

Example: In C Super Locrian, C is 7 of Db melodic minor, so . . .

Two staves of musical notation. The left staff, labeled 'Db Melodic Minor', shows a scale with notes: B, C, D, E, F, G, A. The right staff, labeled 'C Super Locrian', shows a scale with notes: A, B, C, D, E, F, G. Below the staves are the note names: 1 2 b3 4 5 6 7 1 2 b3 4 5 6.

C Super Locrian is mode VII of Db melodic minor.
Compared to major of the same root

Two staves of musical notation. The left staff, labeled 'C Major', shows a scale with notes: C, D, E, F, G, A, B. The right staff, labeled 'C Super Locrian', shows a scale with notes: A, B, C, D, E, F, G. Below the staves are the note names: 1 b2 b3 b4 b5 b6 b7 b9 #9 #11 b13.

Super Locrian is like a major scale with b2, b3, b4, b5, b6, b7.

SUMMARY OF THE MODES OF MELODIC MINOR

(mode I = melodic minor) = 1 2 b3 4 5 6 7
mode II = Dorian b2 = 1 b2 b3 4 5 6 b7
mode III = Lydian #5 = 1 2 3 #4 #5 6 7
mode IV = Lydian b7 = 1 2 3 #4 5 6 b7
mode V = Mixolydian b6 = 1 2 3 4 5 b6 b7
mode VI = Aeolian b5 = 1 2 b3 4 b5 b6 b7
mode VII = Super Locrian = 1 b2 b3 b4 b5 b6 b7

MELODIC MINOR MODES

C MELODIC MINOR

4	b3	1	4
7	6		
5	1	4	2 5
		7	b3
6	2	5	1
	b3		4
7	6	2	7
1	4	b3	5 1
	7		
2	5	1	4 6 2
b3			b3
6	2	5	7
4	b3	1	4
7	6		
5	1	4	2 5
		7	b3
6	2	5	1
	b3		4

C DORIAN b2

4	b7	b3	1	4
	6	b2		
5	1	4	b7	5
	b2		b3	
6	5	1	6	
b7	b3	b2	4	b7
	6			
1	4	b7	b3	5 1
	b2		b2	
5	1	4	6	
b3	b2	b7	b3	
6	5			
4	b7	b3	1	4
	6	b2		
5	1	4	b7	5
	b2		b3	
6	5	1	6	
b7	b3	b2	4	b7

C LYDIAN #5

		#5	1	
#4	7	3	6	#4
1				
#5		7		#5
6	2	1	3	6
#5				
7	3	6	2	#4
1				1
#4	7	3	#5	
2	1	6	2	
#5				
3	6	2	7	3
#5				
1				
#4	7	3	#5	
2	1	6	2	
#5				
3	6	2	7	3
#5				
6	2	1	3	6
#5				

MELODIC MINOR MODES

C LYDIAN b7

	b7			1
4		3 6		4
3	5	1	b7 2 5	
		4		
5	6 2 5	1	3 6	
b7			b7	
7	3 6 2	4		
	1	b7 5 1		
9	4	3		
2 5 1	6	2		
	4	b7		
12	3 6 2 5	3		
b7			1	
	4	3 6	4	
15	5	1	b7 2 5	
		4		
17	6 2 5	1	3 6	b7
b7				

C MIXOLYDIAN b6

4	b7	b6	1	4
		3		
3	5	1	4 b7 2 5	
b6			b5	
5	2 5	1	3	
b7	b6	4	b7	
7	3	2		
1	4 b7	5 1		
9		3 b5		
2 5 1	4	2		
b6		b7		
12	3	2 5	3	
4 b7	b6	1	4	
	3			
15	5	1	b7 2 5	b6
b6				
17	2 5	1	3	b7
b7	b6	4	b7	

C AEOLIAN b5

4	b7	b5	b6	1	4
b5				1	4 b7 2 5
b6	b5	b3	b6		
2		1			
b7 b3 b6	4 b7	2	b5		
1	4 b7 b3	1	b6		
b5			2		
b3 b6	b5 b7 b3	2			
12					
4 b7 b3 b6	1	4	b5		
b5					
15	1	4 b7 2	b5		
b6	b5	b3	b6		
17	2		1		
b7 b3 b6	4	b7			

MELODIC MINOR MODES

C SUPER LOCRIAN

	b7	b3	*5	1
b5	3	b2	b5	
3	1	b7		
*5	b2	b5	b3	*5
5		1	3	
b7	b3	*5	b2	b7
7	3		b5	
1	b7	b3	1	
9	b2	b5	3	*5 b2
	1			
b3	*5	b2	b5	b7
12	3		3	
	b7	b3	*5	1
b5	3	b2	b5	
15	1	b7		
*5	b2	b5	b3	*5
17		1	3	
b7	b3	*5	b2	b7

PENTATONIC SCALES

The minor pentatonic scale is a five note scale made up of the intervals 1 b3 4 5 b7 (from the root of the minor pentatonic scale). For example, Amin pent = A C D E G.

In the key of C major, C D E F G A B C D E F G etc. ... you can extract minor pentatonic scales starting on II (D), III (E), and VI (A).

In C: II min pent = D F G A C

III min pent = E G A B D

VI min pent = A C D E G

It is true of every major scale that minor pentatonics can be extracted from II, III and VI (the same degrees that produce minor 7 chords, if you remember from the section on the harmonized major scale).

The major pentatonic scale is a five-note scale made up of the intervals 1 2 3 5 6. e.g., Cmaj pent = C D E G A.

In the key of C major, you can extract major pentatonics starting on I (C), IV (F), and V (G).

In C: I maj pent = C D E G A

IV maj pent = F G A C D

V maj pent = G A B D E

It is true of every major scale that you can extract major pentatonics from I, IV and V (the same degrees that produce major triads).

Notice that the major and minor pentatonics are inversions of each other (contain the same notes).

In C: I maj pent = C D E G A = same notes as VI minor pent = A C D E G

IV maj pent = F G A C D = II minor pent = D F G A C

V maj pent = G A B D E = III minor pent = E G A B D

BLUES SCALES

The minor blues scales are six-note scales: the same notes as minor pentatonics, with the addition of b5. The intervals are 1 b3 4 b5 [nat.] 5 b7.

In C: II minor blues = D F G **Ab** A[nat.] C

III minor blues = E G A **Bb** B[nat.] D

VI minor blues = A C D **Eb** E[nat.] G

Even though the b5's of the minor blues scales are not in the major scale (for example, C major does not contain Ab, Bb or Eb), the blues scale is such a strong sound that your ear will accept the extra note with no problem, adding spice to the regular pentatonic sound. So any time the minor pentatonics are appropriate, the minor blues may also be used.

The major blues scales are six-note scales, the same notes as the major pentatonics, with the addition of b3. The intervals are 1 2 b3 [nat.] 3 5 6.

In C: I major blues = C D Eb E[nat.] G A

IV major blues = F G Ab A[nat.] C D

V major blues = G A Bb B[nat.] D E

Notice that the major and minor blues are inversions of each other. (This is essentially the difference between blues and country styles).

In C: I major blues = C D Eb E[nat.] G A = VI minor blues = A C D Eb E[nat.] G

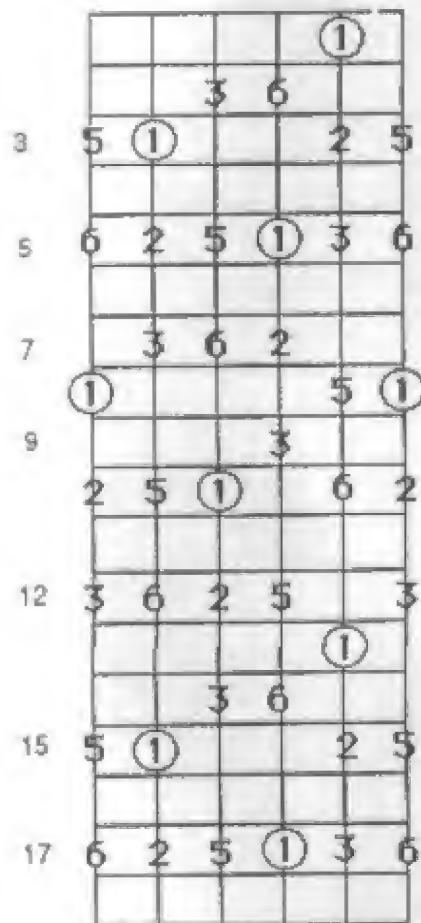
IV major blues = F G Ab A[nat.] C D = II minor blues = D F G Ab A[nat.] C

V major blues = G A Bb B[nat.] D E = III minor blues = E G A Bb B[nat.] D

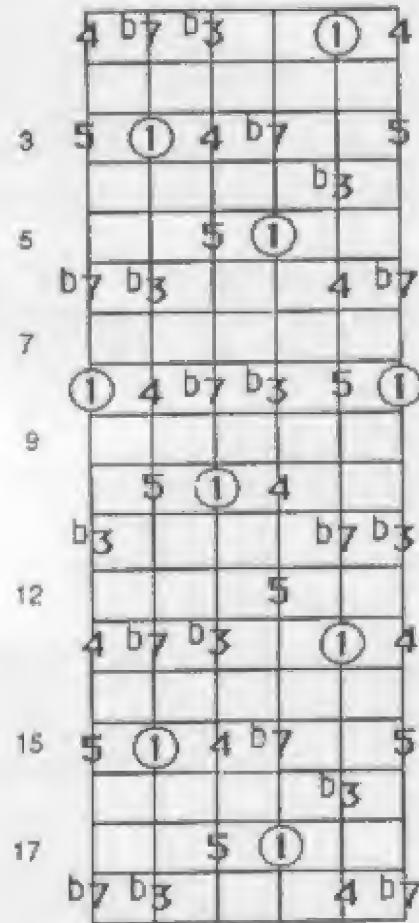
Again, even though the b3's of the major blues are not in the major scale, your ear accepts them and so the major blues may be used any time the major pentatonics are appropriate.

Since the major pentatonics/blues scales contain the same notes as the minor pent/blues, the use of the minor is more common in contemporary pop, rock and jazz (the major pent/blues are used in country music). I refer only to the minor pent/blues in this book and leave it to you, if you want, to remember that the majors are available as well.

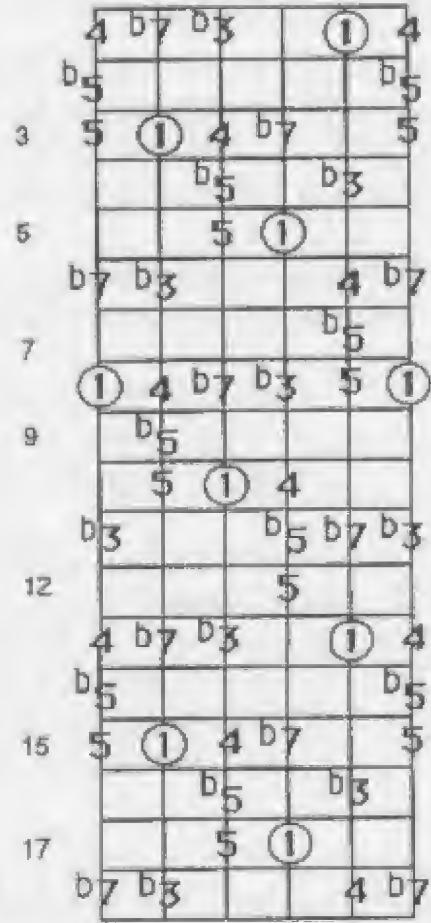
C MAJ PENTATONIC



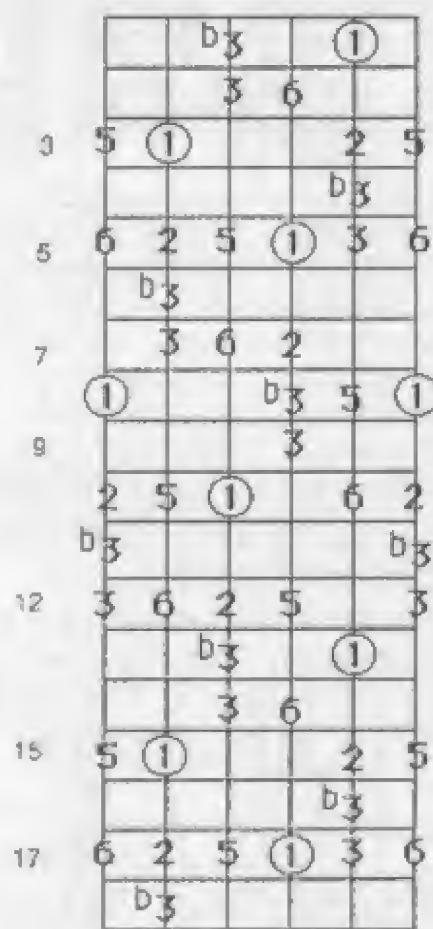
C MIN PENTATONIC



C MIN BLUES



C MAJ BLUES



FRANK GAMBALE THE FRANK GAMBALE TECHNIQUE BOOK 1

Frank Gambale is one of the most distinctive guitar players on the scene. He sounds like a happy hybrid of a jazz player's love of harmonic lines, a metal player's love of arpeggios and a full singing legato tone, as if George Benson, Malmsteen and Holdsworth collaborated on a single solo. His speed/sweep-picking technique is already legendary, so this new book is a welcome instructional publication.

The Technique Book looks at the way Gambale solos over chordal harmonies. The method is structured around six basic chordal types (minor 7, maj 7, dom 7, altered dom 7, min 7 flat 5, and diminished) approached five ways: by diatonic scales (selected based on the tonality required), pentatonic/blues scales, four-note arpeggios, triads (both as notes and chordal fragments) and two-note intervals. This book is the first of two and covers the first four chordal types.

The Technique Book is a method for examining what all these possibilities sound like over a given chord. Gambale provides all the options and then tells you what his preferred sounds are in context. It ends up that what Frank plays are moving harmonic progressions superimposed over more or less static chords or vamps. The melodically phrased progressions selected give his solo lines harmonic interest and internally generated movement (in contrast to the usually single modal approach used by the average rock player).

The Book is an exposé of how to use rather simple musical materials to create sophisticated solos by combining them in specific ways. Without burdening the player with overly theoretical jargon, Gambale shows how to play harmonic extensions to basic chordal sounds that end up sounding rather "hip." Jazz players have been using these techniques for decades and this book explains them to the guitar player. A short and pithy appendix covers all the theory basics you need. If you follow the fingering notation you will gain insight into Gambale's mastery of the fretboard.

Examples of what each scale approach sounds like are on the accompanying audio cassette. The examples are well chosen and sometimes he plays them at several tempos, even at his usual blistering rate. The tape begins and ends with some typical Gambale soloing for those who don't know why he is considered a guitar hero.

The Frank Gambale Technique Book is a valuable source of new ideas for the guitarist wishing to expand beyond the usual melodic territories.

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